```
=> file registry
FILE 'REGISTRY' ENTERED AT 11:35:59 ON 25 JAN 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   24 JAN 2006  HIGHEST RN 872575-89-8
DICTIONARY FILE UPDATES:  24 JAN 2006  HIGHEST RN 872575-89-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

*********************************************************************
*                                                                   *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005.  A new display format, IDERL, is now    *
* available and contains the CA role and document type information. *
*                                                                   *
*********************************************************************

Structure search iteration limits have been increased.  See HELP SLIMITS
for details.

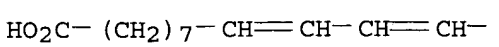
REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> d L3 ide

L3   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2006 ACS on STN
RN   1839-11-8  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   9,11-Octadecadienoic acid (6CI, 8CI, 9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   Δ9,11-Octadecadienoic acid
CN   9,11-Linoleic acid
CN   CLA 80
CN   Conjugated linoleic acid
CN   Nouracid DE 554
CN   NSC 7886
CN   Ricineic acid
CN   Ricinenic acid
CN   Selin CLA
FS   3D CONCORD
MF   C18 H32 O2
CI   COM
LC   STN Files:   ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, CA, CAOLD,
       CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, EMBASE, IFICDB, IFIPAT,
       IFIUDB, MEDLINE, PIRA, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL
```

(*File contains numerically searchable property data)
Other Sources: NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

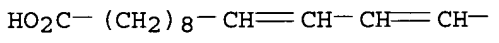


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

409 REFERENCES IN FILE CA (1907 TO DATE)
44 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
410 REFERENCES IN FILE CAPLUS (1907 TO DATE)
14 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d L4 ide

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN
RN 22880-03-1 REGISTRY
ED Entered STN: 16 Nov 1984
CN **10,12-Octadecadienoic acid (6CI, 8CI, 9CI)** (CA INDEX NAME)
FS 3D CONCORD
MF C18 H32 O2
CI COM
LC STN Files: AGRICOLA, BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, IFICDB, IFIUDB, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

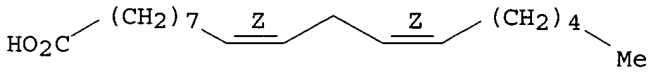
77 REFERENCES IN FILE CA (1907 TO DATE)
10 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
77 REFERENCES IN FILE CAPLUS (1907 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d L2 ide

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN
RN 60-33-3 REGISTRY
ED Entered STN: 16 Nov 1984
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 9,12-Octadecadienoic acid (Z,Z)-
CN **Linoleic acid (8CI)** ← substance converted to CLA
OTHER NAMES:
CN (9Z,12Z)-9,12-Octadecadienoic acid
CN (Z,Z)-9,12-Octadecadienoic acid
CN α-Linoleic acid
CN 9,12-Octadecadienoic acid, (Z,Z)-
CN 9-cis,12-cis-Linoleic acid
CN 9Z,12Z-Linoleic acid
CN 9Z,12Z-Octadecadienoic acid

CN all-cis-9,12-Octadecadienoic acid
CN cis,cis-Linoleic acid
CN cis-Δ9,12-Octadecadienoic acid
CN cis-9,cis-12-Octadecadienoic acid
CN Emersol 315
CN Extra Linoleic 90
CN Linolic acid
CN Polylin 515
CN Unifac 6550
FS STEREOSEARCH
MF C18 H32 O2
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PATDPASPC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, TULSA, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

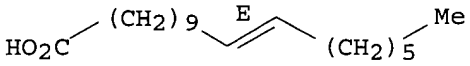
34810 REFERENCES IN FILE CA (1907 TO DATE)
1442 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
34890 REFERENCES IN FILE CAPLUS (1907 TO DATE)
10 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d L5 ide

L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN
RN 693-72-1 REGISTRY
ED Entered STN: 16 Nov 1984
CN 11-Octadecenoic acid, (11E)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 11-Octadecenoic acid, (E)- (8CI)
CN **Vaccenic acid (6CI)** ← substance converted to CLA
OTHER NAMES:
CN (E)-11-Octadecenoic acid
CN (E)-Octadec-11-enoic acid
CN 11(E)-Octadecenoic acid
CN 11-trans-Octadecenoic acid
CN trans-Δ11-Octadecenoic acid
CN trans-11-Octadecenoic acid
CN trans-Vaccenic acid
FS STEREOSEARCH
MF C18 H34 O2
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CAOLD,

CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DETHERM*, DRUGU,
EMBASE, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, NAPRALERT, NIOSHTIC,
SYNTHLINE, TOXCENTER, TULSA, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)

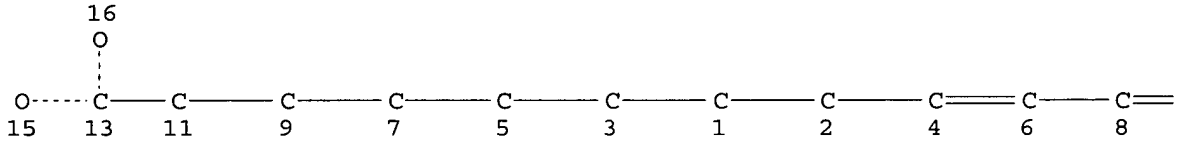
Double bond geometry as shown.



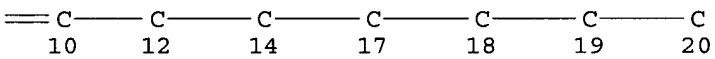
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

941 REFERENCES IN FILE CA (1907 TO DATE)
13 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
945 REFERENCES IN FILE CAPLUS (1907 TO DATE)
15 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> => d stat que L7
L6 STR



Page 1-A



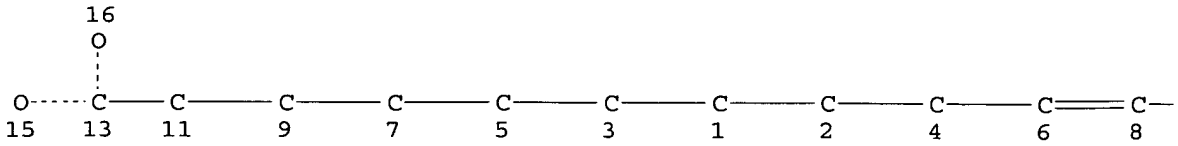
Page 1-B
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

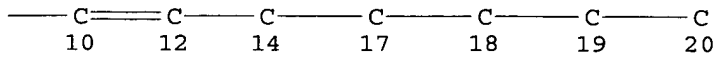
STEREO ATTRIBUTES: NONE
L7 88 SEA FILE=REGISTRY FAM FUL L6 Family search

100.0% PROCESSED 3472 ITERATIONS 88 ANSWERS
SEARCH TIME: 00.00.01

=> d stat que L9
L8 STR



Page 1-A



Page 1-B
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

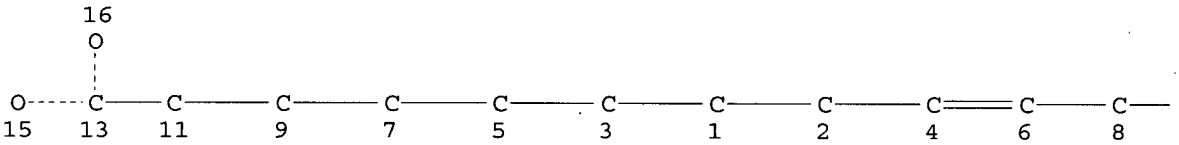
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
L9 29 SEA FILE=REGISTRY FAM FUL L8

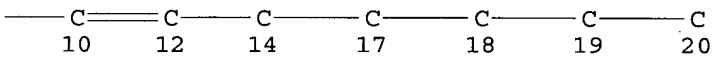
Family search

100.0% PROCESSED 3472 ITERATIONS 29 ANSWERS
SEARCH TIME: 00.00.01

=> d stat que L11
L10 STR



Page 1-A



Page 1-B
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

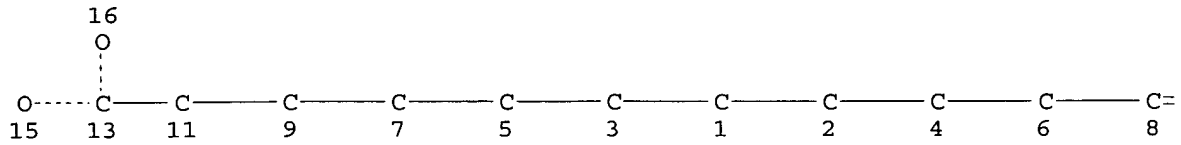
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
L11 1622 SEA FILE=REGISTRY FAM FUL L10

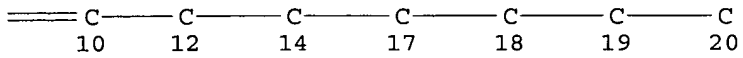
family search

100.0% PROCESSED 4212 ITERATIONS 1622 ANSWERS
SEARCH TIME: 00.00.01

```
=> d stat que L13
L12             STR
```



Page 1-A



Page 1-B
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
L13 73 SEA FILE=REGISTRY FAM FUL L12 Family search

100.0% PROCESSED 14312 ITERATIONS 73 ANSWERS
SEARCH TIME: 00.00.01

=> => file hcaplus
FILE 'HCAPLUS' ENTERED AT 12:19:27 ON 26 JAN 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. AUTHOR SEARCH
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 26 Jan 2006 VOL 144 ISS 5
FILE LAST UPDATED: 25 Jan 2006 (20060125/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.
'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que nos L76

```
L74          1313 SEA FILE=HCAPLUS ABB=ON  PLU=ON  COOK M?/AU
L75            12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BUTZ D?/AU
L76             3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L74 AND L75
```

```
=> d que nos L77

L6               STR
L7            88 SEA FILE=REGISTRY FAM FUL L6
L8               STR
L9            29 SEA FILE=REGISTRY FAM FUL L8
L10              STR
L11         1622 SEA FILE=REGISTRY FAM FUL L10
L12              STR
L13           73 SEA FILE=REGISTRY FAM FUL L12
L15         1344 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7
L16          705 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L17        38331 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11
L18         3693 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13
L74         1313 SEA FILE=HCAPLUS ABB=ON  PLU=ON  COOK M?/AU
L75           12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BUTZ D?/AU
L77           42 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L74 OR L75) AND (L15 OR L16
                 OR L17 OR L18)
```

```
=> s L76-L77

L165          43 (L76 OR L77)
```

```
=> file medline

FILE 'MEDLINE' ENTERED AT 12:19:31 ON 26 JAN 2006

 FILE LAST UPDATED: 25 JAN 2006 (20060125/UP).  FILE COVERS 1950 TO DATE.

 On December 11, 2005, the 2006 MeSH terms were loaded.

 The MEDLINE reload for 2006 will soon be available.  For details
 on the 2005 reload, enter HELP RLOAD at an arrow promt (=>).
 See also:

    http://www.nlm.nih.gov/mesh/
    http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
    http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
    http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

 OLDMEDLINE is covered back to 1950.

 MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
 MeSH 2006 vocabulary.

 This file contains CAS Registry Numbers for easy and accurate
```

```
=> d que nos L72

L70           982 SEA FILE=MEDLINE ABB=ON  PLU=ON  COOK M?/AU
L71            14 SEA FILE=MEDLINE ABB=ON  PLU=ON  BUTZ D?/AU
L72             1 SEA FILE=MEDLINE ABB=ON  PLU=ON  L70 AND L71
```

```
=> d que nos L73

L6              STR
L7           88 SEA FILE=REGISTRY FAM FUL L6
L8              STR
L9           29 SEA FILE=REGISTRY FAM FUL L8
L12             STR
L13          73 SEA FILE=REGISTRY FAM FUL L12
L41          66 SEA FILE=MEDLINE ABB=ON  PLU=ON  L7
L42             SEL  PLU=ON  L7 1- CHEM :     143 TERMS
L43        1454 SEA FILE=MEDLINE ABB=ON  PLU=ON  L42
L44           0 SEA FILE=MEDLINE ABB=ON  PLU=ON  L9
L45             SEL  PLU=ON  L9 1- CHEM :      57 TERMS
L46         187 SEA FILE=MEDLINE ABB=ON  PLU=ON  L45
L50        7695 SEA FILE=MEDLINE ABB=ON  PLU=ON  LINOLEIC ACIDS+NT/CT
L52          78 SEA FILE=MEDLINE ABB=ON  PLU=ON  L13
L53             SEL  PLU=ON  L13 1- CHEM :     107 TERMS
L54        1128 SEA FILE=MEDLINE ABB=ON  PLU=ON  L53
L55        1454 SEA FILE=MEDLINE ABB=ON  PLU=ON  L41 OR L43
L56         187 SEA FILE=MEDLINE ABB=ON  PLU=ON  L44 OR L46
L57        1128 SEA FILE=MEDLINE ABB=ON  PLU=ON  L52 OR L54
L70         982 SEA FILE=MEDLINE ABB=ON  PLU=ON  COOK M?/AU
L71          14 SEA FILE=MEDLINE ABB=ON  PLU=ON  BUTZ D?/AU
L73          21 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L70 OR L71) AND ((L55 OR L56
                OR L57) OR L50)


=> s L72-L73

L166        21 (L72 OR L73)

=> file embase

FILE 'EMBASE' ENTERED AT 12:19:33 ON 26 JAN 2006
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 FILE COVERS 1974 TO 19 Jan 2006 (20060119/ED)

 EMBASE has been reloaded. Enter HELP RLOAD for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d que nos L132

L130        760 SEA FILE=EMBASE ABB=ON  PLU=ON  COOK M?/AU
L131         14 SEA FILE=EMBASE ABB=ON  PLU=ON  BUTZ D?/AU
L132          1 SEA FILE=EMBASE ABB=ON  PLU=ON  L130 AND L131


=> d que nos L133

L3            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  9,11-OCTADECADIENOIC ACID/CN

L4            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  10,12-OCTADECADIENOIC
                ACID/CN
L6              STR
L7           88 SEA FILE=REGISTRY FAM FUL L6
L8              STR
L9           29 SEA FILE=REGISTRY FAM FUL L8
```

```
L12             STR
L13          73 SEA FILE=REGISTRY FAM FUL L12
L79           5 SEA FILE=EMBASE ABB=ON  PLU=ON  L7
L86             SEL  PLU=ON  L3 1- CHEM :       11 TERMS
L87         852 SEA FILE=EMBASE ABB=ON  PLU=ON  L86
L88           0 SEA FILE=EMBASE ABB=ON  PLU=ON  L9
L90             SEL  PLU=ON  L4 1- CHEM :        2 TERMS
L91          38 SEA FILE=EMBASE ABB=ON  PLU=ON  L90
L92         178 SEA FILE=EMBASE ABB=ON  PLU=ON  L13
L93             SEL  PLU=ON  L13 1- CHEM :      107 TERMS
L94         706 SEA FILE=EMBASE ABB=ON  PLU=ON  L93
L95         852 SEA FILE=EMBASE ABB=ON  PLU=ON  L79 OR L87
L96          38 SEA FILE=EMBASE ABB=ON  PLU=ON  L88 OR L91
L97         706 SEA FILE=EMBASE ABB=ON  PLU=ON  L92 OR L94
L98        8251 SEA FILE=EMBASE ABB=ON  PLU=ON  LINOLEIC ACID/CT
L99           8 SEA FILE=EMBASE ABB=ON  PLU=ON  LINOLEIC ACID CONJUGATE/CT
L100         40 SEA FILE=EMBASE ABB=ON  PLU=ON  LINOLEIC ACID DERIVATIVE/CT
L101         60 SEA FILE=EMBASE ABB=ON  PLU=ON  LINOLEIC ACID ETHYL ESTER/CT
L102        123 SEA FILE=EMBASE ABB=ON  PLU=ON  LINOLEIC ACID METHYL ESTER/CT
L130        760 SEA FILE=EMBASE ABB=ON  PLU=ON  COOK M?/AU
L131         14 SEA FILE=EMBASE ABB=ON  PLU=ON  BUTZ D?/AU
L133         19 SEA FILE=EMBASE ABB=ON  PLU=ON  (L95 OR L96 OR L97 OR L98 OR
                L99 OR L100 OR L101 OR L102) AND (L130 OR L131)


=> s L132-L133

L167         19 (L132 OR L133)

=> file biosis

FILE 'BIOSIS' ENTERED AT 12:19:36 ON 26 JAN 2006
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 25 January 2006 (20060125/ED)


=> d que nos L136

L134       1299 SEA FILE=BIOSIS ABB=ON  PLU=ON  COOK M?/AU
L135          8 SEA FILE=BIOSIS ABB=ON  PLU=ON  BUTZ D?/AU
L136          5 SEA FILE=BIOSIS ABB=ON  PLU=ON  L134 AND L135


=> d que nos L164

L6              STR
L7           88 SEA FILE=REGISTRY FAM FUL L6
L8              STR
L9           29 SEA FILE=REGISTRY FAM FUL L8
L12             STR
L13          73 SEA FILE=REGISTRY FAM FUL L12
L134       1299 SEA FILE=BIOSIS ABB=ON  PLU=ON  COOK M?/AU
L135          8 SEA FILE=BIOSIS ABB=ON  PLU=ON  BUTZ D?/AU
L137       1159 SEA FILE=BIOSIS ABB=ON  PLU=ON  L7
L138            SEL  PLU=ON  L7 1- CHEM :      143 TERMS
```

```
L139        2260 SEA FILE=BIOSIS ABB=ON  PLU=ON  L138
L140          59 SEA FILE=BIOSIS ABB=ON  PLU=ON  L9
L141             SEL  PLU=ON  L9 1- CHEM :       57 TERMS
L142         220 SEA FILE=BIOSIS ABB=ON  PLU=ON  L141
L143         300 SEA FILE=BIOSIS ABB=ON  PLU=ON  L13
L144             SEL  PLU=ON  L13 1- CHEM :      107 TERMS
L145        2140 SEA FILE=BIOSIS ABB=ON  PLU=ON  L144
L146        5115 SEA FILE=BIOSIS ABB=ON  PLU=ON  LINOLEIC ACID/CT
L147        2260 SEA FILE=BIOSIS ABB=ON  PLU=ON  L137 OR L139
L148         220 SEA FILE=BIOSIS ABB=ON  PLU=ON  L140 OR L142
L149        2140 SEA FILE=BIOSIS ABB=ON  PLU=ON  L143 OR L145
L150          78 SEA FILE=BIOSIS ABB=ON  PLU=ON  HYPERSENSITIV? (3A) (TYPE III
                 OR TYPE 3)
L152       53773 SEA FILE=BIOSIS ABB=ON  PLU=ON  RHEUMATOID ARTHRITIS
L153        1059 SEA FILE=BIOSIS ABB=ON  PLU=ON  ARTHUS
L154         806 SEA FILE=BIOSIS ABB=ON  PLU=ON  SERUM SICKN?
L155        2279 SEA FILE=BIOSIS ABB=ON  PLU=ON  ANTIRHEUMAT?
L156        1051 SEA FILE=BIOSIS ABB=ON  PLU=ON  IMMUNE COMPLEX DIS?
L157       17925 SEA FILE=BIOSIS ABB=ON  PLU=ON  GLOMERULONEPHRIT?
L158       31618 SEA FILE=BIOSIS ABB=ON  PLU=ON  LUPUS ERYTHEMAT? (3A) SYSTEMIC

L163          60 SEA FILE=BIOSIS ABB=ON  PLU=ON  (L134 OR L135) AND (L146 OR
                 L147 OR L148 OR L149)
L164           3 SEA FILE=BIOSIS ABB=ON  PLU=ON  L163 AND (L150 OR (L152 OR
                 L153 OR L154 OR L155 OR L156 OR L157 OR L158))


=> s L136 or L164

L168           8 L136 OR L164

=> => dup rem L165 L166 L167 L168
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PROCESSING COMPLETED FOR L165
PROCESSING COMPLETED FOR L166
PROCESSING COMPLETED FOR L167
PROCESSING COMPLETED FOR L168
L169           56 DUP REM L165 L166 L167 L168 (35 DUPLICATES REMOVED)
                  ANSWERS '1-43' FROM FILE HCAPLUS
                  ANSWERS '44-49' FROM FILE MEDLINE
                  ANSWERS '50-51' FROM FILE EMBASE
                  ANSWERS '52-56' FROM FILE BIOSIS

=> d ibib abs hitind hitstr L169 1-43; d iall L169 44-56

L169 ANSWER 1 OF 56  HCAPLUS  COPYRIGHT 2006 ACS on STN DUPLICATE 1
ACCESSION NUMBER:         2005:1083022  HCAPLUS
DOCUMENT NUMBER:          143:359692
TITLE:                    10t,12c-conjugated linoleic acid inhibits
```

lipopolysaccharide-induced cyclooxygenase expression in vitro and in vivo

AUTHOR(S): Li, Guangming; Barnes, David; **Butz, Daniel**; Bjorling, Dale; **Cook, Mark E.**

CORPORATE SOURCE: Molecular and Environmental Toxicology, University of Wisconsin-Madison, Madison, WI, 53706, USA

SOURCE: Journal of Lipid Research (2005), 46(10), 2134-2142
CODEN: JLPRAW; ISSN: 0022-2275

PUBLISHER: American Society for Biochemistry and Molecular Biology, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Previous data demonstrated that conjugated linoleic acid (CLA) reduced eicosanoid release from select organs. We hypothesized that one active CLA isomer was responsible for the reduced prostaglandin release and that the mechanism was through the inhibition of inducible cyclooxygenase-2 (COX-2). Here, we examined the effects of trans-10,cis-12-CLA and cis-9,trans-11-CLA on COX-2 protein/mRNA expression, prostaglandin E2 (PGE2) production, and the mechanism by which CLA affects COX-2 expression and prostaglandin release. The COX-2 protein expression level was inhibited 80% by trans-10,cis-12-CLA and 26% by cis-9,trans-11-CLA at 100 μM in vitro. PGE2 production was decreased from 5.39 to 1.12 ng/2+106 cells by trans-10,cis-12-CLA and from 5.7 to 4.5 ng/2+106 cells by cis-9,trans-11-CLA at 100 μM. Mice fed trans-10,cis-12-CLA but not cis-9,trans-11-CLA were found to have a 34% decrease in COX-2 protein and a 43% reduction of PGE2 release in the lung. Trans-10,cis-12-CLA reduced COX-2 mRNA expression level by 30% at 100 μM in vitro and by 30% in mouse lung in vivo. Reduced COX-2 mRNA was attributable to an inhibition of the nuclear factor κB (NF-κB) pathway by trans-10,cis-12-CLA. These data suggested that the inhibition of NF-κB was one of the mechanisms for the reduced COX-2 expression and PGE2 release by trans-10,cis-12-CLA.

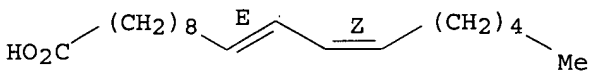
CC 1-7 (Pharmacology)
Section cross-reference(s): 18

IT **2420-56-6**, trans-10,cis-12-Conjugated linoleic acid
2540-56-9, cis-9,trans-11-Conjugated linoleic acid
RL: PAC (Pharmacological activity); BIOL (Biological study)
(conjugated linoleic acid inhibits lipopolysaccharide-induced cyclooxygenase expression in vitro and in vivo)

IT **2420-56-6**, trans-10,cis-12-Conjugated linoleic acid
2540-56-9, cis-9,trans-11-Conjugated linoleic acid
RL: PAC (Pharmacological activity); BIOL (Biological study)
(conjugated linoleic acid inhibits lipopolysaccharide-induced cyclooxygenase expression in vitro and in vivo)

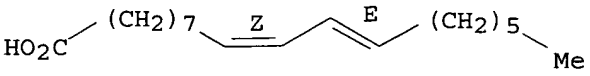
RN 2420-56-6 HCAPLUS
CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 2540-56-9 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 2 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2005:319387 HCAPLUS
DOCUMENT NUMBER: 143:96626
TITLE: Effects of trans-10,cis-12 conjugated linoleic acid and cognates on apolipoprotein B secretion in HepG2 cells
AUTHOR(S): Storkson, Jayne M.; Park, Yeonhwa; **Cook, Mark E.**; Pariza, Michael W.
CORPORATE SOURCE: Department of Food Microbiology and Toxicology, Food Research Institute, University of Wisconsin-Madison, Madison, WI, 53706, USA
SOURCE: Nutrition Research (New York, NY, United States) (2005), 25(4), 387-399
CODEN: NTRSDC; ISSN: 0271-5317
PUBLISHER: Elsevier Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Conjugated linoleic acid (CLA) has been shown to decrease apolipoprotein B (apoB) secretion in HepG2 cells. The purpose of this study was to determine the activity of individual CLA isomers-and to test cognates that are structurally related to CLA-with regard to apoB secretion. Trans-10,cis-12 CLA decreased apoB secretion whereas cis-9,trans-11, cis-9,cis-11, trans-9,trans-11, and the chloride, alc., or amide forms of CLA had no effect on apoB secretion. Trans-9,cis-12 octadecadenoic acid had no effect whereas cis-9,cis-12 octadecadienoic acid (linoleic acid) enhanced apoB secretion. Among 18-carbon monounsatd. fatty acids tested, only trans-10 octadecenoic acid decreased apoB secretion. Trans-11, trans-12, trans-13, cis-9, cis-11, and cis-13 octadecenoic acids increased apoB secretion whereas trans-9 and cis-12 octadecenoic acids were without effect. None of the 20-carbon compds. tested or cis-12 octadecen-10-ynoic acid had an effect on apoB secretion. Conjugated nonadecadenoic acid decreased apoB secretion whereas cis-10,cis-13 nonadecadienoic acid did not. The reduction of apoB secretion by CLA mixture is caused by the unique structural features of trans-10,cis-12 CLA. A trans double bond at the 10 th position appears to be a key structure involved in the inhibition of apoB secretion.

CC 18-5 (Animal Nutrition)
Section cross-reference(s): 13

IT 112-80-1, 9-Octadecenoic acid (9Z)-, biological studies **544-70-7** **693-72-1** **872-23-1** **2420-42-0** **2420-56-6** 298216-31-6
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(effects of trans-10,cis-12 conjugated linoleic acid and cognates on apolipoprotein B secretion in HepG2 cells)

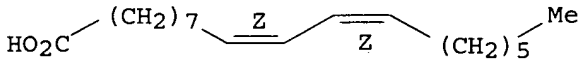
IT **60-33-3**, Linoleic acid, biological studies 112-79-8 **506-17-2** 693-71-0 1783-84-2 **2540-56-9** 5598-38-9 5684-82-2 13126-37-9 13126-38-0 13126-39-1 26322-26-9 29204-20-4 30643-68-6, Nonadecadienoic acid 80625-60-1 105835-45-8 113515-93-8 121250-47-3, Conjugated linoleic acid 544447-17-8 857025-57-1 857025-58-2, 9,10-Octadecadien-1-ol 857025-59-3, 9,10-Octadecadienamide
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL

(Biological study)
(effects of trans-10,cis-12 conjugated linoleic acid and cognates on apolipoprotein B secretion in HepG2 cells)

IT **544-70-7 693-72-1 872-23-1 2420-42-0 2420-56-6**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(effects of trans-10,cis-12 conjugated linoleic acid and cognates on apolipoprotein B secretion in HepG2 cells)

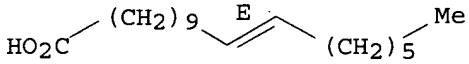
RN 544-70-7 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



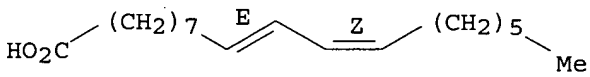
RN 693-72-1 HCAPLUS
CN 11-Octadecenoic acid, (11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



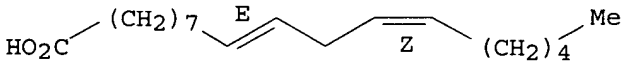
RN 872-23-1 HCAPLUS
CN 9,11-Octadecadienoic acid, (9E,11Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



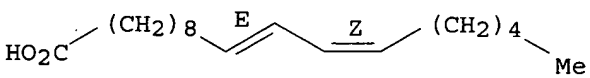
RN 2420-42-0 HCAPLUS
CN 9,12-Octadecadienoic acid, (9E,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 2420-56-6 HCAPLUS
CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

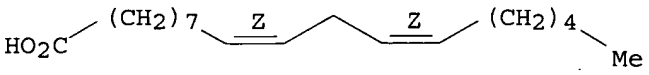
Double bond geometry as shown.



IT **60-33-3**, Linoleic acid, biological studies **506-17-2 2540-56-9**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(effects of trans-10,cis-12 conjugated linoleic acid and cognates on

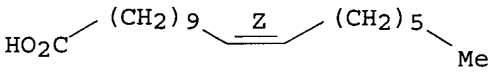
apolipoprotein B secretion in HepG2 cells)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



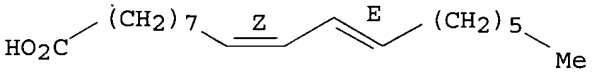
RN 506-17-2 HCAPLUS
CN 11-Octadecenoic acid, (11Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 2540-56-9 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 3 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2004:1123158 HCAPLUS
DOCUMENT NUMBER: 142:279326
TITLE: The effect of dietary conjugated linoleic acid on egg yolk fatty acids and hatchability in Japanese quail
AUTHOR(S): Aydin, R.; **Cook, M. E.**
CORPORATE SOURCE: Department of Animal Science, Kahramanmaras Sutcu Imam University, Kahramanmaras, Turk.
SOURCE: Poultry Science (2004), 83(12), 2016-2022
CODEN: POSCAL; ISSN: 0032-5791
PUBLISHER: Poultry Science Association, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Conjugated linoleic acid (CLA) increased the ratio of saturated fatty acids to monounsatd. fatty acids in yolk and caused embryo mortality. The authors' preliminary studies showed that CLA had less of an effect on hatchability of quail than chickens. Hence, the objective was to determine the effects of dietary CLA on quail egg fatty acid content and hatchability. Eight male-female Japanese quail pairs per group were randomly assigned to diets containing 0 (canola oil; CO), 0.25, 0.5, 1, 2, or 3% CLA for 8 wk. Eggs were collected, held at 15°C for 24 h, and then incubated. Three eggs from each group were collected for fatty acid anal. on the 45th day. At the end of the 8 wk, all quail were euthanized. Liver samples from female quail were obtained for fatty acid anal. Diet containing 3, 2, or 1% CLA caused 100% embryo mortality after 6, 10, or 12 d of feeding, whereas overall hatchabilities in groups 0, 0.25, and 0.5 were 84, 86, and 64%,

resp. As the dietary CLA increased, egg and hepatic CLA increased, C16:0 increased and C16:1(n-7) and C18:1(n-9) decreased, whereas C18:0 remained unchanged. Diets containing 1, 2, or 3% CLA decreased the C20:4(n-6) levels in yolk (significantly) and liver (inconsistently) lipids. Yolk CLA levels from 0, 0.25, 0.5, 1, 2, and 3% CLA were 0.31, 0.90, 1.48, 2.44, 5.88, and 11.2%, resp. The ratios of C16:0/C16:1(n-7) in yolks from groups fed 0, 0.25, 0.5, 1, 2, or 3% CLA were 8.2, 16.3, 20.4, 24.6, 26.1, and 28.6, resp. The ratios of C18:0/C18:1(n-9) in yolks from hens fed 0, 0.25, 0.5, 1, 2, or 3% CLA were 0.28, 0.40, 0.48, 0.49, 0.69, and 0.83, resp. Quail fed 0.25% CLA had increased egg size, whereas quail fed 2 or 3% had reduced egg size compared with those fed CO. Liver sizes (%) in all of the groups were increased, except for the group fed 0.25% CLA. These data suggest that CLA may affect hatchability possibly by changing the fatty acid composition of the yolk.

CC 18-5 (Animal Nutrition)

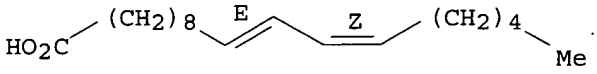
IT **2420-56-6 2540-56-9**
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)
(effect of dietary conjugated linoleic acid on egg yolk fatty acids and hatchability in Japanese quail)

IT 57-10-3, Hexadecanoic acid, biological studies 57-11-4, Octadecanoic acid, biological studies **60-33-3**, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies 112-80-1, 9-Octadecenoic acid (9Z)-, biological studies 373-49-9 463-40-1, α-Linolenic acid 506-26-3, γ-Linolenic acid 506-32-1 544-63-8, Tetradecanoic acid, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(effect of dietary conjugated linoleic acid on egg yolk fatty acids and hatchability in Japanese quail)

IT **2420-56-6 2540-56-9**
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)
(effect of dietary conjugated linoleic acid on egg yolk fatty acids and hatchability in Japanese quail)

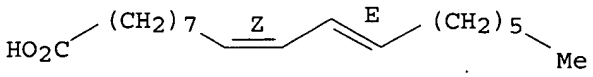
RN 2420-56-6 HCAPLUS
CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 2540-56-9 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

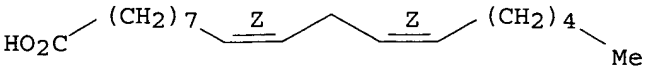
Double bond geometry as shown.



IT **60-33-3**, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(effect of dietary conjugated linoleic acid on egg yolk fatty acids and hatchability in Japanese quail)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



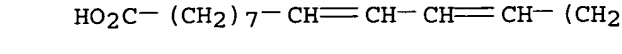
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 4 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2004:733482 HCAPLUS
DOCUMENT NUMBER: 141:410294
TITLE: Structure-activity relationship of conjugated linoleic acid and its cognates in inhibiting heparin-releasable lipoprotein lipase and glycerol release from fully differentiated 3T3-L1 adipocytes
AUTHOR(S): Park, Yeonhwa; Storkson, Jayne M.; Liu, Wei; Albright, Karen J.; **Cook, Mark E.**; Pariza, Michael W.
CORPORATE SOURCE: Food Research Institute, University of Wisconsin-Madison, Madison, WI, 53706, USA
SOURCE: Journal of Nutritional Biochemistry (2004), 15(9), 561-568
CODEN: JNBIEL; ISSN: 0955-2863
PUBLISHER: Elsevier Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Conjugated linoleic acid (CLA) reduces body fat in part by inhibiting the activity of heparin-releasable lipoprotein lipase (HR-LPL) activity in adipocytes, an effect that is induced by the trans-10,cis-12 CLA isomer. In this study we used a series of compds. that are structurally related to CLA (i.e., CLA cognates) to investigate the structural basis for this phenomenon. None of the 18:1 CLA cognates that were tested, nor trans-9,cis-12 18:2, cis-12-octadecen-10-ynoic acid (10y,cis-12) or 11-(2'-(n-pentyl)phenyl)-10-undecylenic acid (designated P-t10), exhibited any significant effect on HR-LPL activity. Among the CLA derivs. (alc., amide, and chloride) that were tested, only the alc. form inhibited HR-LPL activity, although to a lesser extent than CLA itself. In addition, intracellular TG was reduced only by trans-10,cis-12 CLA and the alc. form of CLA. Hence it appears that the trans-10,cis-12 conjugated double bond in conjunction with a carboxyl group at C-1 is required for inhibition of HR-LPL activity, and that an alc. group can partially substitute for the carboxyl group. We also studied glycerol release from the cells, observing that this was enhanced by trans-10 18:1, trans-13 18:1, cis-12 18:1, cis-13 18:1, P-t10 but was reduced by cis-9 18:1, the alc. and amide forms of CLA or 10y,cis-12. Accordingly the structural feature or features involved in regulating lipolysis appear to be more complex. Despite enhancing lipolysis in cultured 3T3-L1 adipocytes, trans-10 18:1 did not reduce body fat gain when fed to mice.

CC 18-5 (Animal Nutrition)
IT 56-81-5, Glycerol, biological studies **1839-11-8**, Conjugated linoleic acid 9004-02-8, Lipoprotein lipase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(conjugated linoleic acid effect on lipoprotein lipase and glycerol release from adipocytes)
IT **1839-11-8**, Conjugated linoleic acid
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(conjugated linoleic acid effect on lipoprotein lipase and glycerol release from adipocytes)

RN 1839-11-8 HCAPLUS
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 5 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 2003:47895 HCAPLUS
DOCUMENT NUMBER: 138:254351
TITLE: Dietary conjugated linoleic acid decreased cachexia, macrophage tumor necrosis factor-α production, and modifies splenocyte cytokines production
AUTHOR(S): Yang, Mingder; **Cook, Mark E.**
CORPORATE SOURCE: Department of Animal Sciences, University of Wisconsin, Madison, WI, 53706, USA
SOURCE: Experimental Biology and Medicine (Maywood, NJ, United States) (2003), 228(1), 51-58
CODEN: EBMMBE; ISSN: 1535-3702
PUBLISHER: Society for Experimental Biology and Medicine
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effect of conjugated linoleic acid (CLA) on macrophage functions were studied in vitro, in vivo, and ex vivo. In RAW macrophage cell line, CLA (mixed isomers) was shown to inhibit lipopolysaccharide (LPS)-stimulated tumor necrosis factor-α (TNF-α) production Two CLA isomers, c9,t11 and t10,c12, were tested on RAW cells and it was found that the c9,t11 was the isomer responsible for the inhibition of LPS-induced TNF-α production BALB/c mice were used to determine the effect of dietary CLA on body weight wasting and feed intake after LPS injection. CLA was protective against LPS-induced body weight wasting and anorexia. Plasma TNF-α levels after LPS injection were lower in the CLA group compared with the corn oil-fed control group 2 h post-LPS injection. In a sep. experiment, 30 mice were fed a CLA-supplemented diet or a corn oil-supplemented diet for 6 wk and peritoneal resident macrophages were obtained for measuring TNF-α and nitric oxide production after in vitro exposure to interferon-γ (IFN-γ) and/or LPS. TNF-α production was not found to be different in peritoneal macrophages from mice fed the dietary treatments, but less nitric oxide was produced in macrophages from CLA-fed mice upon stimulation when compared with macrophages from control-fed mice. Splenocytes were also collected from the mice fed the dietary treatments and stimulated to produce cytokines in culture. Supernatant was used to run cytokine enzyme-linked immunoabsorbant assays. Interleukin-4 (IL-4) was decreased in CLA-fed mice when splenocytes were stimulated with Con A (Con A) for 44 h; however, IL-2 and the IL-2-to-IL-4 ratio were elevated.

CC 18-5 (Animal Nutrition)
IT **1839-11-8**, Conjugated linoleic acid
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(conjugated linoleic acid effect on cachexia, macrophage tumor necrosis factor-alpha and splenocyte cytokine production)
IT **1839-11-8**, Conjugated linoleic acid
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(conjugated linoleic acid effect on cachexia, macrophage tumor necrosis factor-alpha and splenocyte cytokine production)
RN 1839-11-8 HCAPLUS
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)

$HO_2C-(CH_2)_7-CH=CH-CH=CH-(CH_2)_5-Me$

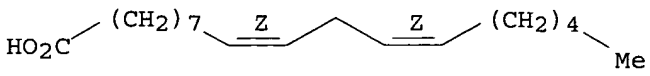
REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 6 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 7
ACCESSION NUMBER: 2002:283508 HCAPLUS
DOCUMENT NUMBER: 137:32725
TITLE: Decreased antigen-induced eicosanoid release in conjugated linoleic acid-fed guinea pigs
AUTHOR(S): Whigham, Leah D.; Higbee, Alan; Bjorling, Dale E.; Park, Yeonhwa; Pariza, Michael W.; **Cook, Mark E.**
CORPORATE SOURCE: Department of Nutritional Sciences, College of Agriculture and Life Sciences, University of Wisconsin-Madison, Madison, WI, 53706, USA
SOURCE: American Journal of Physiology (2002), 282(4, Pt. 2), R1104-R1112
CODEN: AJPHAP; ISSN: 0002-9513
PUBLISHER: American Physiological Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB This study investigated the capacity of conjugated linoleic acids (CLA) to reduce ex vivo antigen-induced release of eicosanoids in a type I hypersensitivity model. Guinea pigs were fed a diet containing 0.25% safflower oil (control) or 0.25% CLA [43% trans (t)10, cis (c)12; 41% c9, t11/t9, c11 18:2] for 2 wk before and during sensitization to ovalbumin (OVA). Lungs, tracheas, and bladders were incubated in physiol. saline solution (PSS) for 1 h (basal mediator release) and challenged with OVA (0.01 g/l PSS) for 1 h (mediator release in response to antigen). Eicosanoids were quantified by HPLC/tandem mass spectrometry or enzyme immunoassay. CLA feeding resulted in no change in basal release but decreased eicosanoid release from sensitized tissues in response to antigen challenge in the following manner: thromboxane B2, 6-keto-prostaglandin (PG)F1α, PGF2α, PGD2, PGE2 by 57-75% in lung, 45-65% in trachea, and 38-60% in bladder; and leukotriene C4/D4/E4 by 87, 90, and 50% in lung, trachea, and bladder, resp. These data indicate that feeding CLA reduces lipid-derived inflammatory mediators produced by this type I hypersensitivity model.

CC 18-5 (Animal Nutrition)
IT **60-33-3**, Linoleic acid, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(dietary linoleic acid effect on antigen-induced release of eicosanoids in a type-I hypersensitivity model)
IT **60-33-3**, Linoleic acid, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(dietary linoleic acid effect on antigen-induced release of eicosanoids in a type-I hypersensitivity model)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

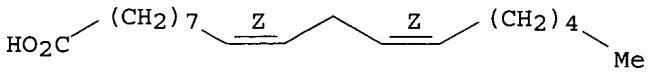
L169 ANSWER 7 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 8
ACCESSION NUMBER: 2001:187227 HCAPLUS
DOCUMENT NUMBER: 134:295133
TITLE: Olive oil prevents the adverse effects of dietary conjugated linoleic acid on chick hatchability and egg quality
AUTHOR(S): Aydin, Rahim; Pariza, Michael W.; **Cook, Mark E.**
CORPORATE SOURCE: Animal Sciences Department, University of Wisconsin-Madison, Madison, WI, 53706, USA
SOURCE: Journal of Nutrition (2001), 131(3), 800-806
CODEN: JONUAI; ISSN: 0022-3166
PUBLISHER: American Society for Nutritional Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Dietary conjugated linoleic acid (CLA) decreases yolk 18:1(n-9), induces chick embryonic mortality and alters egg quality. A study was conducted to determine whether olive oil would prevent these adverse effects of CLA. Hens (15 per treatment) were fed diets containing 0.5 g corn oil/100 g (CO), 0.5 g CLA/100 g (CLA), 0.5 g corn oil plus 10 g olive oil/100 g (CO + OO) or 0.5 g CLA plus 10 g olive oil/100 g (CLA + OO). After 74 d of feeding, hens were placed on CO for 10 d. Hens were artificially inseminated weekly. For hatchability studies, fertile eggs were collected daily, stored at 15°C for 24 h and then incubated. After 6 d of feeding, embryonic mortality rates were 15, 100, 8 and 16% in the CO, CLA, CO + OO and CLA + OO groups, resp. When CLA-fed hens were fed the CO diet, hatchability improved to that of the CO group within 7 d. For fatty acid anal., three eggs were obtained at the 7 d of feeding. Relative CLA levels of yolk from CO-, CLA-, CO + OO- and CLA + OO-fed hens were 0.11 ± 0.01, 1.91 ± 0.16, 0.08 ± 0.04 and 0.69 ± 0.07 g/100 g fatty acids, resp. The ratios of 16:0/16:1(n-7) and 18:0/18:1(n-9) of yolk from CLA-fed hens were .apprx.1- and .apprx.1.5-fold greater, resp., compared with those fed CO. OO prevented CLA-induced increases in 16:0 and 18:0 and the decrease in 18:1(n-9) in yolk. Fertile eggs were stored at 4°C for 2 or 10 wk and analyzed for pH or mineral levels. Dietary CLA caused abnormal pH changes of albumen and yolk when eggs were stored at 4°C. The pH of yolk and albumen from CO-fed hens after 10 wk of storage was 6.12 ± 0.12 and 9.06 ± 0.03, resp., vs. 7.89 ± 0.25 and 8.32 ± 0.16, resp., in eggs from CLA-fed hens. OO prevented CLA-induced abnormal changes in the pH of albumen and yolks. Eggs from CLA-fed hens had greater iron, calcium and zinc concns. and lower magnesium, sodium and chloride concns. in albumen relative to those from hens fed CO. OO prevented CLA-induced mineral exchange between yolk and albumen, presumably by reducing the yolk saturated fatty acids, which are believed to disrupt the vitelline membrane during cold storage. This study suggests that the adverse effects of CLA may be due to the increased level of saturated fatty acids. However, because the addition of olive oil also lowered egg CLA content, the direct role of egg CLA on egg hatchability and quality cannot be ruled out.

CC 18-5 (Animal Nutrition)
IT **60-33-3**, Linoleic acid, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(olive oil prevents the adverse effects of dietary conjugated linoleic acid on chick hatchability and egg quality)
IT **60-33-3**, Linoleic acid, biological studies

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (olive oil prevents the adverse effects of dietary conjugated linoleic acid on chick hatchability and egg quality)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

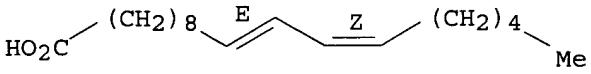


REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 8 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 9
ACCESSION NUMBER: 2001:511285 HCAPLUS
DOCUMENT NUMBER: 135:287975
TITLE: The biologically active isomers of conjugated linoleic acid
AUTHOR(S): Pariza, Michael W.; Park, Yeonhwa; **Cook, Mark E.**
CORPORATE SOURCE: Department of Food Microbiology and Toxicology, Food Research Institute, University of Wisconsin-Madison, Madison, WI, 53706, USA
SOURCE: Progress in Lipid Research (2001), 40(4), 283-298
CODEN: PLIRDW; ISSN: 0163-7827
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 86 refs. is given. Numerous physiol. effects are attributed to conjugated linoleic acid (CLA). The purpose of this presentation is to consider these effects with respect to the cis-9,trans-11 and trans-10,cis-12 CLA isomers. We review previously published data and present new findings that relate to underlying biochem. mechanisms of action. Both isomers are natural products. The cis-9,trans-11 isomer is the principal dietary form of CLA, but the concns. of this isomer and the trans-10,cis-12 isomer in dairy products or beef vary depending on the diet fed to cows or steers, resp. The trans-10,cis-12 CLA isomer exerts specific effects on adipocytes, in particular reducing the uptake of lipid by inhibiting the activities of lipoprotein lipase and stearoyl-CoA desaturase. The trans-10,cis-12 CLA isomer also affects lipid metabolism in cultured Hep-G2 human liver cells, whereas both the cis-9,trans-11 and trans-10,cis-12 CLA isomers appear to be active in inhibiting carcinogenesis in animal models. We present new findings indicating that the cis-9,trans-11 CLA isomer enhances growth and probably feed efficiency in young rodents. Accordingly, the effects of CLA on body composition (induced by trans-10,cis-12 CLA) and growth/feed efficiency (induced by cis-9,trans-11 CLA) appear to be due to sep. biochem. mechanisms. We also show that a 19-carbon CLA cognate (conjugated nonadecadienoic acid, CNA) inhibits lipoprotein lipase activity as effectively as CLA in cultured 3T3-L1 adipocytes. Presumably, CNA is metabolized differently than the 18-carbon CLA isomers, so this finding indicates direct activity of the administered compound as opposed to acting via a metabolite.
CC 18-0 (Animal Nutrition)
IT **2420-56-6**, trans-10,cis-12-Octadecadienoic acid **2540-56-9**, cis-9,trans-11-Octadecadienoic acid 121250-47-3, Conjugated linoleic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

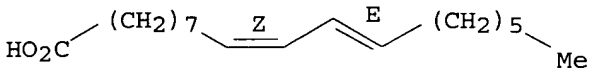
study, unclassified); BIOL (Biological study)
(biol. active isomers of conjugated linoleic acid)
IT **2420-56-6**, trans-10,cis-12-Octadecadienoic acid **2540-56-9**
, cis-9,trans-11-Octadecadienoic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(biol. active isomers of conjugated linoleic acid)
RN 2420-56-6 HCAPLUS
CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 2540-56-9 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

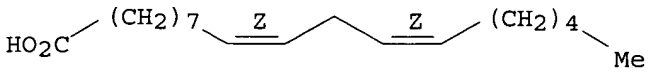


REFERENCE COUNT: 86 THERE ARE 86 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 9 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 10
ACCESSION NUMBER: 2001:206741 HCAPLUS
DOCUMENT NUMBER: 134:295138
TITLE: Dietary supplementation with conjugated linoleic acid does not alter the resistance of mice to Listeria monocytogenes infection
AUTHOR(S): Turnock, Lori; **Cook, Mark**; Steinberg, Howard; Czuprynski, Charles
CORPORATE SOURCE: Department of Pathobiological Sciences, University of Wisconsin-Madison, Madison, WI, 53706, USA
SOURCE: Lipids (2001), 36(2), 135-143
CODEN: LPDSAP; ISSN: 0024-4201
PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Conjugated linoleic acid (CLA) has been used exptl. as a dietary supplement to increase lean body weight and to modulate inflammation in a variety of animal species. In addition, human use of dietary CLA as a supplement to regulate body fat has received both scientific and public attention. No reports have been published regarding the effects of dietary CLA on antimicrobial resistance. In this study, we provide evidence that feeding CLA for up to 4 wk does not alter host defense against Listeria monocytogenes in mice. These findings suggest that the anti-inflammatory effects of CLA do not impair cellular immunity to this intracellular pathogen.
CC 18-5 (Animal Nutrition)
IT **60-33-3**, Linoleic acid, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(dietary supplementation with conjugated linoleic acid effect on

resistance of mice to Listeria monocytogenes infection)
IT **60-33-3**, Linoleic acid, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(dietary supplementation with conjugated linoleic acid effect on resistance of mice to Listeria monocytogenes infection)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

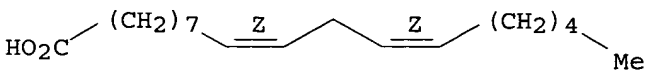
Double bond geometry as shown.



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 10 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 11
ACCESSION NUMBER: 2001:13239 HCAPLUS
DOCUMENT NUMBER: 134:207038
TITLE: Conjugated linoleic acid: implications for human health
AUTHOR(S): Whigham, Leah D.; **Cook, Mark E.**; Atkinson, Richard L.
CORPORATE SOURCE: Department of Nutritional Sciences, University of Wisconsin, Madison, WI, USA
SOURCE: Pharmacological Research (2000), 42(6), 503-510
CODEN: PHMREP; ISSN: 1043-6618
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 77 refs. Conjugated linoleic acid (CLA) is being sold as a panacea that has the capability of reducing or eliminating cancer, preventing heart disease, improving immune function, and altering body composition to treat obesity or build lean body mass. Unfortunately, there has been very little published human research on CLA. This review will examine the literature on CLA and discuss the animal research on which the above claims are made. The limited human studies will be presented with an evaluation of the potential uses of CLA for human health and disease. (c) 2000 The Italian Pharmacological Society.
CC 18-0 (Animal Nutrition)
IT **60-33-3**, Linoleic acid, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(dietary conjugated linoleic acid in relation to human health)
IT **60-33-3**, Linoleic acid, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(dietary conjugated linoleic acid in relation to human health)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



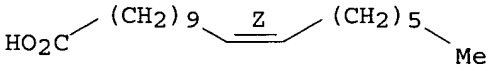
REFERENCE COUNT: 77 THERE ARE 77 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 11 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 13
ACCESSION NUMBER: 2000:490675 HCAPLUS
DOCUMENT NUMBER: 133:263068
TITLE: Inhibition of hepatic stearoyl-CoA desaturase activity by trans-10,cis-12 conjugated linoleic acid and its derivatives
AUTHOR(S): Park, Y.; Storkson, J. M.; Ntambi, J. M.; **Cook, M. E.**; Sih, C. J.; Pariza, M. W.
CORPORATE SOURCE: Department of Food Microbiology and Toxicology, Food Research Institute, University of Wisconsin-Madison, Madison, WI, USA
SOURCE: Biochimica et Biophysica Acta, Molecular and Cell Biology of Lipids (2000), 1486(2-3), 285-292
CODEN: BBMLFG; ISSN: 1388-1981
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Conjugated linoleic acid (CLA) has been reported to decrease stearoyl-CoA desaturase (SCD) activity by decreasing mRNA expression. This investigation was designed to determine whether structurally related compds. of CLA have a direct inhibitory effect on SCD activity. Trans-10,cis-12 CLA had strong inhibitory activity on SCD while cis-9,trans-11, and trans-9,trans-11 isomers had no effect. Trans-10 octadecenoate was not inhibitory, whereas cis-12 octadecenate was inhibitory, but not as effective as trans-10,cis-12 CLA. Of the oxygenated derivs., 9-peroxy-cis/trans-10, trans-12 octadecadienoate was a more effective inhibitor than trans-10,cis-12 CLA, whereas 9-hydroxy-trans-10, cis-12 octadecadienoate was less effective. Interestingly, cis-11 octadecadienoate and cis-12 octadecen-10-ynoate were slightly inhibitory. However, trans-9 and trans-11 octadecenoates, and trans-9,cis-12 octadecadienoate were all inactive under test condition, as were linoleate, oleate, and arachidonate. Derivs. of CLA acid modified to alc., amide or chloride were all inactive. A cis-12 double bond appears to be a key structural feature for inhibiting SCD activity, especially when coupled with a trans-10 double, whereas a cis-11 double bond is less effective.

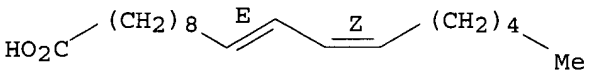
CC 7-3 (Enzymes)
IT **506-17-2**, cis-11-Octadecenoic acid **2420-56-6**, 10-trans-12-cis-Linoleic acid 5502-91-0 9014-34-0, Stearoyl-CoA desaturase 13126-37-9, cis-12-Octadecenoic acid 98524-19-7 298216-31-6
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(inhibition of hepatic stearoyl-CoA desaturase activity by conjugated linoleic acid and its derivs.)
IT **506-17-2**, cis-11-Octadecenoic acid **2420-56-6**, 10-trans-12-cis-Linoleic acid
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(inhibition of hepatic stearoyl-CoA desaturase activity by conjugated linoleic acid and its derivs.)
RN 506-17-2 HCAPLUS
CN 11-Octadecenoic acid, (11Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 2420-56-6 HCAPLUS
CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

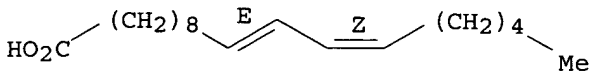
Double bond geometry as shown.



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

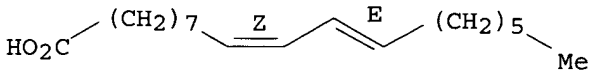
L169 ANSWER 12 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 14
ACCESSION NUMBER: 2000:446971 HCAPLUS
DOCUMENT NUMBER: 133:163523
TITLE: Mechanisms of action of conjugated linoleic acid: evidence and speculation
AUTHOR(S): Pariza, Michael W.; Park, Yeonhwa; **Cook, Mark E.**
CORPORATE SOURCE: Food Research Institute, Department of Food Microbiology and Toxicology, University of Wisconsin-Madison, Madison, WI, 53706, USA
SOURCE: Proceedings of the Society for Experimental Biology and Medicine (2000), 223(1), 8-13
CODEN: PSEBAA; ISSN: 0037-9727
PUBLISHER: Blackwell Science, Inc.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 58 refs. Conjugated linoleic acid (CLA) inhibits carcinogenesis and atherosclerosis, enhances immunol. functions, protects against catabolic effects of immune stimulation, affects body composition changes (decreases body fat gain and enhances lean body mass gain), and stimulates growth in young rats. Possible biochem. mechanisms of these physiol. effects are presented. The importance in these effects of the two main CLA isomers (9-cis,11-trans-CLA and 10-trans,12-cis-CLA), both individually and combined, that have biol. activity and exert their effects via different biochem. mechanisms is discussed.
CC 18-0 (Animal Nutrition)
IT **2420-56-6**, 10,12-Octadecadienoic acid, (10E,12Z)-
2540-56-9, 9-cis,11-trans-Linoleic acid 121250-47-3, Conjugated linoleic acid
RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses)
(dietary conjugated linoleic acid and nutritional biochem. mechanisms of its actions)
IT **2420-56-6**, 10,12-Octadecadienoic acid, (10E,12Z)-
2540-56-9, 9-cis,11-trans-Linoleic acid
RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses)
(dietary conjugated linoleic acid and nutritional biochem. mechanisms of its actions)
RN 2420-56-6 HCAPLUS
CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 2540-56-9 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 13 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 15
ACCESSION NUMBER: 1999:243647 HCAPLUS
DOCUMENT NUMBER: 131:31405
TITLE: Changes in body composition in mice during feeding and withdrawal of conjugated linoleic acid
AUTHOR(S): Park, Yeonhwa; Albright, Karen J.; Storkson, Jayne M.; Liu, Wei; **Cook, Mark E.**; Pariza, Michael W.
CORPORATE SOURCE: Food Research Institute, Department of Food Microbiology and Toxicology, University of Wisconsin-Madison, Madison, WI, 53706, USA
SOURCE: Lipids (1999), 34(3), 243-248
CODEN: LPDSAP; ISSN: 0024-4201
PUBLISHER: AOCS Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two expts. were conducted. In Experiment 1, 8-wk-old mice were fed control diet or diet supplemented with 0.5% conjugated linoleic acid (CLA) to study the effect of CLA on body composition (CLA: 40.8-41.1% c-9,t-11 isomer, 43.5-44.9% t-10,c-12 isomer). The data for CLA-fed mice vs. controls described parallel but significantly distinct responses for both absolute and relative changes in body fat mass (reduced in CLA-fed mice) and for relative changes in whole body protein and whole body water (both of which were increased in CLA-fed mice). In the CLA-fed mice, the effect on whole body protein appeared to precede the reduction in body fat mass. In Experiment 2, weanling mice were fed control diet or diet supplemented with 0.5% CLA for 4 wk (test group), at which time all mice were fed control diet devoid of added CLA. The test group exhibited significantly reduced body fat and significantly enhanced whole body water relative to controls at the time of diet change. Time trends for changes in relative body composition were described by parallel lines where the test group exhibited significantly less body fat but significantly more whole body protein, whole body water, and whole body ash than controls. Tissue CLA levels declined following the withdrawal of CLA from the diet. In skeletal muscle of mice fed CLA-supplemented diet, the t-10,c-12 isomer was cleared significantly faster than the c-9,t-11 CLA isomer.

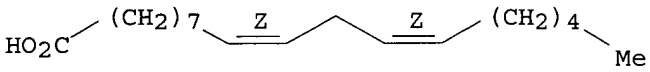
CC 18-5 (Animal Nutrition)
IT **60-33-3**, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(changes in body composition during feeding and withdrawal of conjugated linoleic acid)

IT **60-33-3**, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(changes in body composition during feeding and withdrawal of conjugated linoleic acid)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 14 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 16
ACCESSION NUMBER: 2000:11889 HCAPLUS
DOCUMENT NUMBER: 132:165472
TITLE: Conjugated linoleic acid and the control of cancer and obesity
AUTHOR(S): Pariza, Michael W.; Park, Yeonhwa; **Cook, Mark E.**
CORPORATE SOURCE: Food Research Institute, Department of Food Microbiology and Toxicology, University of Wisconsin-Madison, Madison, WI, 53706-1187, USA
SOURCE: Toxicological Sciences (1999), 52(2, Suppl.), 107-110
CODEN: TOSCF2; ISSN: 1096-6080
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 38 refs. The effects of conjugated linoleic acid (CLA) in animals are discussed. In most CLA prepns. investigated to date for their biol. activity, two CLA isomers are present in about equal concns.: 9-cis,11-trans-CLA and 10-trans,12-cis-CLA. The occurrence of these 2 isomers in foods and their production by rumen microorganisms are discussed. Potential mechanisms of CLA action on cancer and body composition are reviewed, including recent evidence that body composition changes are produced by the 10-trans,12-cis-CLA isomer. CLA may also modulate cellular responses to tumor necrosis factor-α. The mechanistic implications of this finding are considered.

CC 18-0 (Animal Nutrition)
Section cross-reference(s): 14

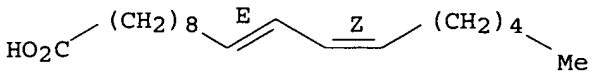
IT **2420-56-6**, 10,12-Octadecadienoic acid (10E,12Z)- **2540-56-9**, 9,11-Octadecadienoic acid (9Z,11E)-
RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses)
(dietary conjugated linoleic acid isomers and control of cancer and obesity)

IT **2420-56-6**, 10,12-Octadecadienoic acid (10E,12Z)- **2540-56-9**, 9,11-Octadecadienoic acid (9Z,11E)-
RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses)
(dietary conjugated linoleic acid isomers and control of cancer and obesity)

RN 2420-56-6 HCAPLUS

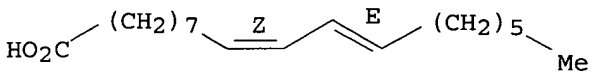
CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 2540-56-9 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

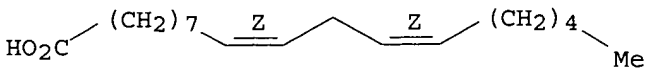


REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 15 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 18
ACCESSION NUMBER: 1995:266229 HCAPLUS
DOCUMENT NUMBER: 122:55004
TITLE: Conjugated linoleic acid is a growth factor for rats as shown by enhanced weight gain and improved feed efficiency
AUTHOR(S): Chin, Sou F.; Stockson, Jayne M.; Albright, Karen J.; **Cook, Mark E.**; Pariza Michael W.
CORPORATE SOURCE: Dep. Poultry Science, University Wisconsin-Madison, Madison, WI, 53706, USA
SOURCE: Journal of Nutrition (1994), 124(12), 2344-9
CODEN: JONUAI; ISSN: 0022-3166
PUBLISHER: American Institute of Nutrition
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We studied the effect of conjugated linoleic acid (CLA) on rat development and growth. Primigravid female Fischer rats were fed control or CLA-supplemented (0.25% or 0.5% CLA) diets during gestation and/or lactation. Conjugated linoleic acid was incorporated into milk fat and tissue lipids proportional to the level of CLA fed and the duration of CLA feeding. Conjugated linoleic acid was incorporated into fetal and neonatal tissues; it did not affect litter size nor induce apparent abnormalities. To the contrary, feeding CLA to the dams during gestation and lactation improved the postnatal body weight gain of pups, measured on d 10 of lactation. Pups that continued to received the CLA-supplemented die after weaning had significantly greater body weight gain and improved feed efficiency relative to control animals.
CC 18-5 (Animal Nutrition)
IT **60-33-3**, Linoleic acid, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(conjugated linoleic acid is a growth factor as shown by enhanced weight gain and improved feed efficiency)
IT **60-33-3**, Linoleic acid, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(conjugated linoleic acid is a growth factor as shown by enhanced weight gain and improved feed efficiency)

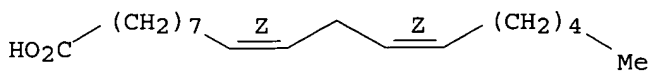
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 16 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 19
ACCESSION NUMBER: 1994:190339 HCAPLUS
DOCUMENT NUMBER: 120:190339
TITLE: Feeding conjugated linoleic acid to animals partially overcomes catabolic responses due to endotoxin injection
AUTHOR(S): Miller, C. C.; Park, Y.; Pariza, M. W.; **Cook, M. E.**
CORPORATE SOURCE: Food Res. Inst., UW Madison, Madison, WI, 53706, USA
SOURCE: Biochemical and Biophysical Research Communications (1994), 198(3), 1107-12
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The ability of conjugated linoleic acid to prevent endotoxin-induced growth suppression was examined Mice fed a basal diet or a diet with 0.5% fish oil lost twice as much body weight after endotoxin injection than mice fed conjugated linoleic acid. By 72 h post injection, mice fed conjugated linoleic acid had body wts. similar to vehicle injected controls; however, body wts. of basal and fish oil fed mice injected with endotoxin were reduced. Conjugated linoleic acid prevented anorexia from endotoxin injection. Splenocyte blastogenesis was increased by conjugated linoleic acid.
CC 18-5 (Animal Nutrition)
Section cross-reference(s): 4
IT **60-33-3**, Linoleic acid, biological studies
RL: BIOL (Biological study)
(growth suppression by endotoxin injection decrease by dietary conjugated)
IT **60-33-3**, Linoleic acid, biological studies
RL: BIOL (Biological study)
(growth suppression by endotoxin injection decrease by dietary conjugated)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 17 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 20
ACCESSION NUMBER: 1993:494402 HCAPLUS
DOCUMENT NUMBER: 119:94402
TITLE: Immune modulation by altered nutrient metabolism: nutritional control of immune-induced growth

depression
AUTHOR(S): **Cook, M. E.**; Miller, C. C.; Park, Y.; Pariza, M.
CORPORATE SOURCE: Food Res. Inst., Univ. Wisconsin, Madison, WI, 53706, USA
SOURCE: Poultry Science (1993), 72(7), 1301-5
CODEN: POSCAL; ISSN: 0032-5791
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The ability of conjugated isomers of linoleic acid (CLA) to prevent reduced growth rate following endotoxin (lipopolysaccharide, LPS) injection was studied in two chick trials and one rat trial. Chicks (10 per treatment) were fed a corn and soybean meal-based diet with or without 0.5% CLA. At 21 days of age, chicks were weighed and injected i.p. with 1 mg/kg BW Escherichia coli LPS and sterile PBS. Body wts. were again determined 24 h later. Antibody responses to SRBC were also determined Rats fed 0.5% stearic acid or CLA for 4 wk (seven per treatment) were also injected with LPS, and BW change over a 24-h postinjection period was determined Antibody responses to BSA, phytohemagglutinin foot pad swelling, and phagocytosis of elicited peritoneal macrophages were also determined The CLA had no adverse effects on any immune variables measured in the chicks and rats. The CLA enhanced the phytohemagglutinin response and macrophage phagocytosis in rats. Chicks fed CLA and injected with LPS continued to grow, whereas those not fed CLA either failed to grow or lost weight following LPS injection. Both control and CLA-fed rats lost weight over the 24-h period after LPS injection; however, the loss of weight in rats fed CLA was only half of the weight loss of the control rats. Thus, CLA is effective in preventing the catabolic effects of immune stimulation.

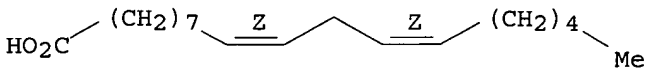
CC 18-5 (Animal Nutrition)
Section cross-reference(s): 15

IT **60-33-3D**, Linoleic acid, conjugated isomers
RL: BIOL (Biological study)
(immune-induced growth depression decrease by dietary)

IT **60-33-3D**, Linoleic acid, conjugated isomers
RL: BIOL (Biological study)
(immune-induced growth depression decrease by dietary)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 18 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 21
ACCESSION NUMBER: 1992:647610 HCAPLUS
DOCUMENT NUMBER: 117:247610
TITLE: Purification of lipoxygenase and hydroperoxide dehydrase in flaxseeds: interaction between these enzymic activities
AUTHOR(S): Rabinovitch-Chable, Helene; **Cook-Moreau, Jeanne**; Breton, Jean Christian; Rigaud, Michel
CORPORATE SOURCE: URA CNRS 1485, Fac. Med., Limoges, 87025, Fr.
SOURCE: Biochemical and Biophysical Research Communications (1992), 188(2), 858-64
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal

LANGUAGE: English

AB A lipoxygenase and a hydroperoxide dehydrase were purified from flaxseed acetone powder. The lipoxygenase activity belongs to an iron-containing protein having a mol. weight of 130 kDa which, upon incubation with α-linolenic acid, forms 13-hydroperoxy-9(Z),11(E),15(Z)-octadecatrienoic acid. The hydroperoxide dehydrase (a 55 kDa protein) metabolizes this hydroperoxide to an allene oxide which in turn is spontaneously hydrolyzed to α- and γ-ketols. Relationships between these 2 enzymes were studied and results suggest an inhibition of the lipoxygenase by hydroperoxide dehydrase.

CC 7-3 (Enzymes)

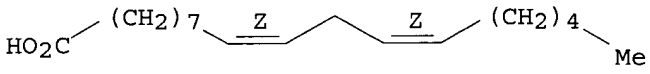
IT **60-33-3**, α-Linoleic acid, biological studies
RL: BIOL (Biological study)
(hydroperoxyoctadecatrienoate formation from, by lipoxygenase of flaxseed)

IT **60-33-3**, α-Linoleic acid, biological studies
RL: BIOL (Biological study)
(hydroperoxyoctadecatrienoate formation from, by lipoxygenase of flaxseed)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 19 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:611846 HCAPLUS

DOCUMENT NUMBER: 143:109789

TITLE: Method of treating type iii hypersensitive reaction-related diseases and conditions by using conjugated linoleic acid

INVENTOR(S): **Cook, Mark E.; Butz, Dan E.**

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 5 pp.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005154059	A1	20050714	US 2004-756719	20040113
WO 2005070410	A1	20050804	WO 2004-US39416	20041123

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

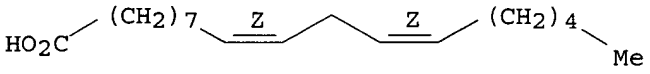
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-756719 A 20040113

AB A method for treating diseases and conditions caused by type III hypersensitive reactions in a human or non-human animal is disclosed. The method involves administering to the animal a conjugated linoleic acid (CLA) or a substance which can be converted to CLA in the animal in an amount effective to reduce inflammation in the animal.

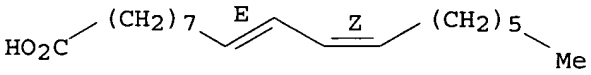
IC ICM A61K031-202
INCL 514560000
CC 1-7 (Pharmacology)
Section cross-reference(s): 63
IT **60-33-3**, Linoleic acid, biological studies
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated; method of treating type iii hypersensitive reaction-related diseases and conditions by using conjugated linoleic acid)
IT **872-23-1 2420-44-2 2420-56-6 2540-56-9**
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method of treating type iii hypersensitive reaction-related diseases and conditions by using conjugated linoleic acid)
IT **60-33-3**, Linoleic acid, biological studies
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated; method of treating type iii hypersensitive reaction-related diseases and conditions by using conjugated linoleic acid)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



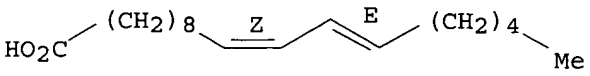
IT **872-23-1 2420-44-2 2420-56-6 2540-56-9**
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method of treating type iii hypersensitive reaction-related diseases and conditions by using conjugated linoleic acid)
RN 872-23-1 HCAPLUS
CN 9,11-Octadecadienoic acid, (9E,11Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



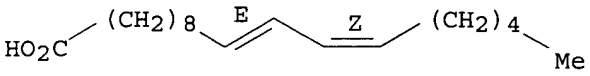
RN 2420-44-2 HCAPLUS
CN 10,12-Octadecadienoic acid, (10Z,12E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



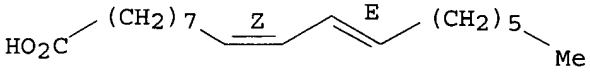
RN 2420-56-6 HCAPLUS
CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 2540-56-9 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 20 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:748725 HCAPLUS
DOCUMENT NUMBER: 140:405959
TITLE: Conjugated linoleic acid enhances immune responses but protects against the collateral damage of immune events
AUTHOR(S): **Cook, Mark E.**; **Butz, Dan**; Li, Guangming; Pariza, Mike; Whigham, Leah; Yang, Mingder
CORPORATE SOURCE: Animal Sciences Department, Molecular and Environmental Toxicology, Food Microbiology and Toxicology, Department of Nutritional Sciences, University of Wisconsin, Madison, WI, 53706, USA
SOURCE: Advances in Conjugated Linoleic Acid Research (2003), Volume 2, 283-291. Editor(s): Sebedio, Jean-Louis; Christie, William W.; Adolf, Richard. AOCS Press: Champaign, Ill.
CODEN: 68IXA3
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English
AB A review. Regulatory effects of dietary conjugated linoleic acid (CLA) in the inhibition of production of antigen-induced cyclooxygenase and lipoxygenase metabolites. The 10-trans,12-cis-CLA isomer appears to be the relevant CLA form. The biol. relevance of immunity-modulating activity of CLA and the pos. and neutral influences on infectious and inflammatory responses are also examined
CC 18-0 (Animal Nutrition)
Section cross-reference(s): 15
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 21 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:63822 HCAPLUS
DOCUMENT NUMBER: 134:110459

TITLE: Selective inhibition of cyclooxygenase-2 with a conjugated linoleic acid, and method for reducing inflammation
INVENTOR(S): **Cook, Mark E.**; Whigham, Leah D.; Pariza, Michael W.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

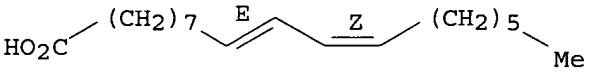
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001005395	A1	20010125	WO 2000-US7824	20000324
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2379649	AA	20010125	CA 2000-2379649	20000324
EP 1196161	A1	20020417	EP 2000-916646	20000324
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: US 1999-357268 A 19990720
WO 2000-US7824 W 20000324

AB A method is disclosed for selectively inhibiting cyclooxygenase 2 in an animal having a cyclooxygenase 2 activity by delivering into the animal an amount of a conjugated linoleic acid effective to reduce cyclooxygenase 2 activity in the animal. Also disclosed is a method using a conjugated linoleic acid to reduce inflammation without causing gastric irritation.

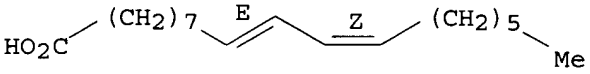
IC ICM A61K031-231
ICS A61P029-00
CC 1-7 (Pharmacology)
Section cross-reference(s): 63
IT **872-23-1 872-23-1D**, esters **2420-44-2 2420-44-2D**, esters **2420-56-6 2420-56-6D**, esters **2540-56-9 2540-56-9D**, esters 121250-47-3, Conjugated linoleic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acid for cyclooxygenase-2 inhibition, and method for reducing inflammation)
IT **872-23-1 872-23-1D**, esters **2420-44-2 2420-44-2D**, esters **2420-56-6 2420-56-6D**, esters **2540-56-9 2540-56-9D**, esters
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acid for cyclooxygenase-2 inhibition, and method for reducing inflammation)
RN 872-23-1 HCAPLUS
CN 9,11-Octadecadienoic acid, (9E,11Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



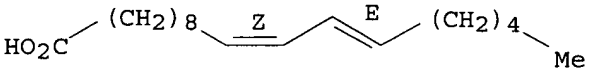
RN 872-23-1 HCAPLUS
CN 9,11-Octadecadienoic acid, (9E,11Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



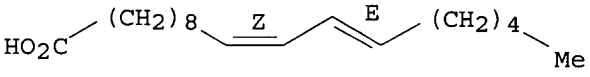
RN 2420-44-2 HCAPLUS
CN 10,12-Octadecadienoic acid, (10Z,12E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



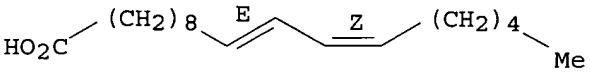
RN 2420-44-2 HCAPLUS
CN 10,12-Octadecadienoic acid, (10Z,12E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



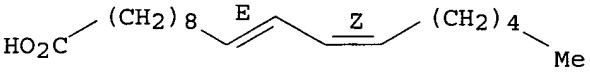
RN 2420-56-6 HCAPLUS
CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



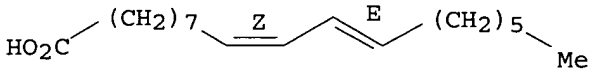
RN 2420-56-6 HCAPLUS
CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



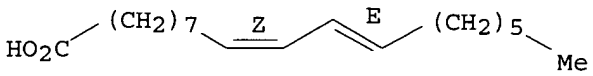
RN 2540-56-9 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 2540-56-9 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 22 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:78907 HCAPLUS
DOCUMENT NUMBER: 132:121952
TITLE: Method for selectively altering body fat level, feed efficiency, or weight gain
INVENTOR(S): **Cook, Mark E.**; Jerome, Daria; Pariza, Michael W.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6020378	A	20000201	US 1999-281382	19990330
CA 2365164	AA	20001005	CA 2000-2365164	20000104
WO 2000057720	A1	20001005	WO 2000-US97	20000104
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1164865	A1	20020102	EP 2000-903091	20000104
EP 1164865	B1	20040602		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002539807	T2	20021126	JP 2000-607486	20000104
NZ 514520	A	20030725	NZ 2000-514520	20000104
AU 771921	B2	20040408	AU 2000-24887	20000104
AT 268122	E	20040615	AT 2000-903091	20000104
ES 2222173	T3	20050201	ES 2000-903091	20000104
PRIORITY APPLN. INFO.:			US 1999-281382 A	19990330
			WO 2000-US97 W	20000104

AB A method for treating an animal to reduce body fat while the animal exhibits improved feed efficiency and either continued weight gain or an increase in lean body mass, includes the steps of administering to the animal a combination of conjugated linoleic acid (CLA) isomers in a ratio selected to retain a desirable benefit attributable to one isomer while counteracting an undesirable effect of the same isomer. Highly enriched semi-pure 9-cis,11-trans-CLA and 10-trans,12-cis-CLA isomers were mixed with a standard mouse diet at the concentration of 0.4 % each; significant decrease in body fats, i.e. from 14 % to 2.1 %, was observed

IC ICM A61K031-20

INCL 514560000

CC 18-7 (Animal Nutrition)

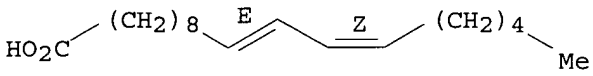
IT **2420-56-6**, 10-trans,12-cis-Linoleic acid **2540-56-9**
121250-47-3, Conjugated linoleic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acids for selectively altering body fat level and feed efficiency and weight gain)

IT **2420-56-6**, 10-trans,12-cis-Linoleic acid **2540-56-9**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acids for selectively altering body fat level and feed efficiency and weight gain)

RN 2420-56-6 HCAPLUS

CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

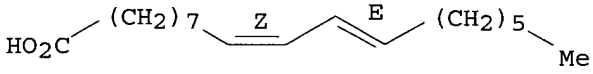
Double bond geometry as shown.



RN 2540-56-9 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 23 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:672525 HCAPLUS

DOCUMENT NUMBER: 131:256791

TITLE: Eggs enriched with conjugated linoleic acid and method for making same

INVENTOR(S): **Cook, Mark E.**; Aydin, Rahim; Pariza, Michael W.

PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9952382	A1	19991021	WO 1999-US7074	19990331
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6113973	A	20000905	US 1998-60588	19980415
CA 2328200	AA	19991021	CA 1999-2328200	19990331
AU 9933745	A1	19991101	AU 1999-33745	19990331
EP 1071340	A1	20010131	EP 1999-915161	19990331
EP 1071340	B1	20030129		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 231688	E	20030215	AT 1999-915161	19990331
ES 2192041	T3	20030916	ES 1999-915161	19990331
PRIORITY APPLN. INFO.:			US 1998-60588 A	19980415
			WO 1999-US7074 W	19990331

AB An egg enriched with conjugated linoleic acid and having a normal appearance is produced by feeding poultry a diet enriched in conjugated linoleic acid (CLA) and a selected monounsatd. fatty acid. A poultry feed supplemented with conjugated linoleic acid and a selected monounsatd. fatty acid is also disclosed.

IC ICM A23L001-32
ICS A23K001-16; A23K001-18

CC 18-5 (Animal Nutrition)
Section cross-reference(s): 17

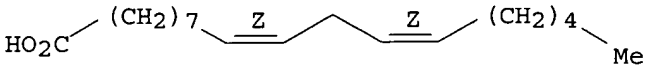
IT **60-33-3**, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(eggs enriched with conjugated linoleic acid and method for making same)

IT **60-33-3D**, Linoleic acid, derivs. 25447-95-4, Hexadecenoic acid 25448-03-7, Octadecatrienoic acid 26764-25-0, Octadecadienoic acid 26764-26-1, Octadecenoic acid
RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses)
(eggs enriched with conjugated linoleic acid and method for making same)

IT **60-33-3**, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(eggs enriched with conjugated linoleic acid and method for making same)

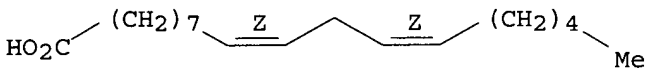
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT **60-33-3D**, Linoleic acid, derivs.
RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses)
(eggs enriched with conjugated linoleic acid and method for making same)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 24 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:425460 HCAPLUS
DOCUMENT NUMBER: 131:58280
TITLE: Method of improving the growth or the efficiency of feed conversion of an animal and compositions for use therein
INVENTOR(S): **Cook, Mark E.**; Jerome, Daria L.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: U.S., 5 pp., Cont.-in-part of U.S. 5,725,873.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5919451	A	19990706	US 1998-37690	19980310
US 5725873	A	19980310	US 1996-684785	19960722
EP 1468614	A1	20041020	EP 2004-17207	19970121
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			US 1996-684785	A2 19960722
			EP 1997-903919	A3 19970121

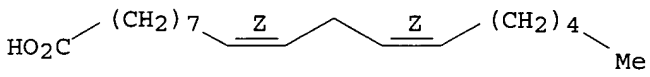
AB A method of improving the efficiency of an animal to convert feed into desirable body tissue involves feeding the animal feed particles having an inner core of nutrients and an outer layer containing a conjugated fatty acid or an antibody that can protect the animal from contacting diseases that can adversely affect the animal's ability to grow or efficiently convert its feed into body tissue.
IC ICM A61K039-395
ICS A23J003-12; A23J001-06; A23K001-16
INCL 424130100
CC 18-6 (Animal Nutrition)
IT **60-33-3**, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies
RL: AGR (Agricultural use); FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(conjugated; method of improving the growth or the efficiency of feed conversion of an animal and antibody- and conjugated fatty acid-coated nutrient compns. for use therein)

IT **60-33-3**, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies
RL: AGR (Agricultural use); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(conjugated; method of improving the growth or the efficiency of feed conversion of an animal and antibody- and conjugated fatty acid-coated nutrient compns. for use therein)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 25 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:4221 HCAPLUS
DOCUMENT NUMBER: 132:347033
TITLE: Conjugated linoleic acid
AUTHOR(S): **Cook, Mark E.**
CORPORATE SOURCE: University of Wisconsin, Madison, WI, USA
SOURCE: Proceedings - Cornell Nutrition Conference for Feed Manufacturers (1999) 102-108
CODEN: PNCFAB; ISSN: 0885-7687
PUBLISHER: Cornell University, New York State College of Agriculture and Life Sciences, Dep. of Animal Science and Division of Nutritional Sciences
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 22 refs. on conjugated linoleic acids (CLA) structure, digestion and immunostimulatory and other biol. effects of dietary CLA.

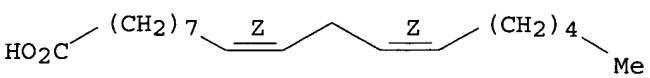
CC 18-0 (Animal Nutrition)
Section cross-reference(s): 15

IT **60-33-3D**, Linoleic acid, conjugated derivs.
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(bio. effects of conjugated linoleic acid)

IT **60-33-3D**, Linoleic acid, conjugated derivs.
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(bio. effects of conjugated linoleic acid)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 26 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:739518 HCAPLUS
DOCUMENT NUMBER: 130:3383
TITLE: Method of increasing fat firmness and improving meat quality in animals
INVENTOR(S): **Cook, Mark E.**; Daria, Jerome J.; Pariza, Michael D.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 14 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9848641	A1	19981105	WO 1997-US19465	19971020
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5851572	A	19981222	US 1997-845535	19970425
AU 9750016	A1	19981124	AU 1997-50016	19971020
AU 729061	B2	20010125		
EP 977492	A1	20000209	EP 1997-912955	19971020
EP 977492	B1	20021211		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
NZ 337448	A	20010223	NZ 1997-337448	19971020
JP 2002501383	T2	20020115	JP 1998-546934	19971020
AT 229279	E	20021215	AT 1997-912955	19971020
ES 2184071	T3	20030401	ES 1997-912955	19971020
CA 2283488	C	20040914	CA 1997-2283488	19971020
CA 2283488	AA	19981105		

PRIORITY APPLN. INFO.: US 1997-845535 A 19970425
WO 1997-US19465 W 19971020

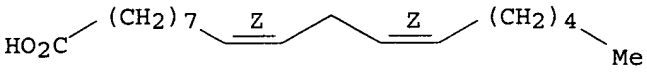
AB A method of treating meat animals to increase fat firmness and meat quality indexes which increases meat processability consists of administering to the meat animals a safe and effective amount of conjugated linoleic acid (CLA).

IC ICM A23K001-16
ICS A23K001-18; A23L001-31
CC 18-5 (Animal Nutrition)
Section cross-reference(s): 17
IT **60-33-3D**, Linoleic acid, salts and esters **1839-11-8**, Conjugated linoleic acid
RL: AGR (Agricultural use); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(method of increasing fat firmness and improving meat quality in animals)
IT **60-33-3D**, Linoleic acid, salts and esters **1839-11-8**, Conjugated linoleic acid
RL: AGR (Agricultural use); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)

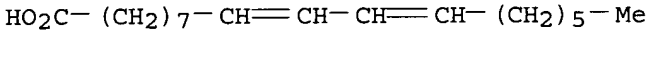
(method of increasing fat firmness and improving meat quality in animals)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 1839-11-8 HCAPLUS
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 27 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:394196 HCAPLUS
DOCUMENT NUMBER: 129:58806
TITLE: Method for controlling body fat and/or body weight in animals and pharmaceutical compositions for use therein
INVENTOR(S): **Cook, Mark E.**; Park, Yeonhwa; Pariza, Michael W.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9824422	A2	19980611	WO 1997-US22192	19971203
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5855917	A	19990105	US 1996-759496	19961204
CA 2269674	AA	19980611	CA 1997-2269674	19971203
AU 9855926	A1	19980629	AU 1998-55926	19971203
EP 942717	A2	19990922	EP 1997-952278	19971203
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001505579	T2	20010424	JP 1998-525778	19971203
PRIORITY APPLN. INFO.:			US 1996-759496 A	19961204
			WO 1997-US22192 W	19971203

AB Methods of inhibiting lipoprotein lipase and controlling the body fat and the body weight of an animal employ an effective amount of at least one 20

carbon, conjugated, unsatd., fatty acid. Pharmaceutical compns. for use in the method are also disclosed. 11,14-Eicosadienoic acid was isomerized under alkaline conditions to obtain conjugated eicosadienoic acid, which was tested for inhibitory effects on the activity of lipoprotein lipase in 3T3-L1 adipocytes. A tablet was formulated containing 600 mg the conjugated eicosadienoic acid mixture

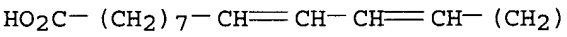
IC ICM A61K031-00
ICS A61K031-20; C07C057-03

CC 63-6 (Pharmaceuticals)

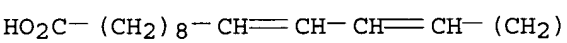
IT **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(C>20 unsatd. conjugated fatty acids for controlling body fat and weight)

IT **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(C>20 unsatd. conjugated fatty acids for controlling body fat and weight)

RN 1839-11-8 HCAPLUS
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 22880-03-1 HCAPLUS
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



L169 ANSWER 28 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:323133 HCAPLUS
DOCUMENT NUMBER: 129:19651
TITLE: Use of conjugated octadecadienoic acids to enhance natural killer lymphocyte function
INVENTOR(S): **Cook, Mark E.**; Kim, Sohee; Pariza, Michael W.; Devoney, Danielle
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9819675	A1	19980514	WO 1997-US20098	19971104
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2267109	AA	19980514	CA 1997-2267109	19971104
AU 9851041	A1	19980529	AU 1998-51041	19971104

US 5914346	A	19990622	US 1997-963740		19971104
EP 941088	A1	19990915	EP 1997-945605		19971104
EP 941088	B1	20030305			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2001503430	T2	20010313	JP 1998-521719		19971104
AT 233557	E	20030315	AT 1997-945605		19971104
PRIORITY APPLN. INFO.:			US 1996-30394P	P	19961105
			WO 1997-US20098	W	19971104

AB A method of enhancing the activity of natural killer lymphocytes and a method for increasing the basal level of natural killer activity in an animal include the step of administering orally or parenterally to said animal a safe amount of CLA (conjugated linoleic acid), said amount being effective to enhance the activity of killer lymphocytes or to enhance the basal activity of killer lymphocytes in the animal.

IC ICM A61K031-23

CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 1

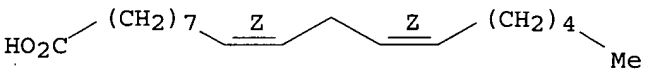
IT **60-33-3D**, Linoleic acid, conjugated analogs **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated octadecadienoic acids to enhance natural killer lymphocyte function)

IT **60-33-3D**, Linoleic acid, conjugated analogs **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated octadecadienoic acids to enhance natural killer lymphocyte function)

RN 60-33-3 HCAPLUS

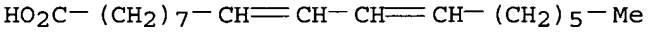
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 1839-11-8 HCAPLUS

CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 22880-03-1 HCAPLUS

CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 29 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:112220 HCAPLUS
DOCUMENT NUMBER: 128:165941
TITLE: Conjugated linoleic acid to maintain or enhance bone mineral content
INVENTOR(S): **Cook, Mark E.**; Pariza, Michael W.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 13 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9805318	A1	19980212	WO 1997-US4536	19970318
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5804210	A	19980908	US 1996-693577	19960807
AU 9723384	A1	19980225	AU 1997-23384	19970318
EP 920309	A1	19990609	EP 1997-916125	19970318
EP 920309	B1	20020904		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000515864	T2	20001128	JP 1998-507892	19970318
AT 223213	E	20020915	AT 1997-916125	19970318
ES 2179319	T3	20030116	ES 1997-916125	19970318

PRIORITY APPLN. INFO.: US 1996-693577 A 19960807
WO 1997-US4536 W 19970318

AB A method of treating an animal to maintain or enhance the mineral content of the bones of the animal consists of administering to the animal a safe and effective amount of conjugated linoleic acid (I). Day old broiler chicks were fed a diet containing 0.5% corn oil (control) or 0.5% I for 27 days. The chicks were then sacrificed and the bones were collected, dried, ether extracted and the ash content % was determined The bones of the chicks fed the diet containing I had a higher ash and mineral content than the control chicks. A pharmaceutical tablet contained I 600, dibasic calcium phosphate 500 mg, cholecalciferol 3.33 μg, microcryst. cellulose, sodium starch glycolate, corn starch, hydrogenated vegetable oil wax, magnesium stearate and talc as excipients.

IC ICM A61K031-20
ICS A61K031-20; A61K033-06; A61K033-10

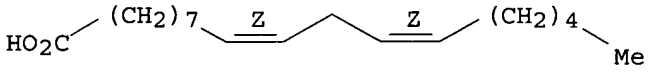
CC 14-11 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 1, 63

IT **60-33-3D**, Linoleic acid, triglycerides 471-34-1, Calcium carbonate, biological studies **822-17-3D**, Sodium Linoleate, conjugates **1839-11-8**, 9,11-Octadecadienoic acid **3414-89-9D**, Potassium Linoleate, conjugates 7757-93-9, Dibasic calcium phosphate **19704-83-7D**, Calcium Linoleate, conjugates **22880-03-1**, 10,12-Octadecadienoic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acid to maintain or enhance bone mineral content)

IT **60-33-3D**, Linoleic acid, triglycerides **822-17-3D**, Sodium Linoleate, conjugates **1839-11-8**, 9,11-Octadecadienoic acid **3414-89-9D**, Potassium Linoleate, conjugates **19704-83-7D**, Calcium Linoleate, conjugates **22880-03-1**, 10,12-Octadecadienoic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acid to maintain or enhance bone mineral content)

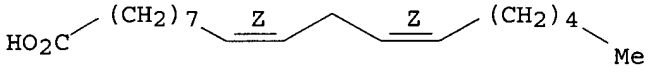
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

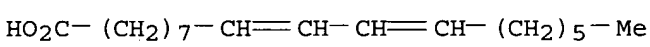


RN 822-17-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)-, sodium salt (9CI) (CA INDEX NAME)

Double bond geometry as shown.

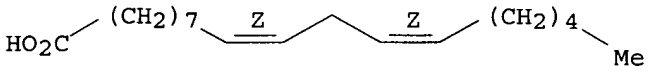


RN 1839-11-8 HCAPLUS
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



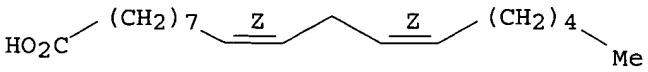
RN 3414-89-9 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)-, potassium salt (9CI) (CA INDEX NAME)

Double bond geometry as shown.



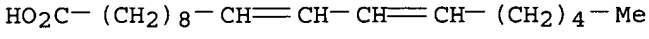
RN 19704-83-7 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)-, calcium salt (9CI) (CA INDEX NAME)

Double bond geometry as shown.



●1/2 Ca

RN 22880-03-1 HCAPLUS
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 30 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:87584 HCAPLUS
DOCUMENT NUMBER: 128:139997
TITLE: Method of improving the growth or the efficiency of feed conversion of an animal and compositions for this use
INVENTOR(S): **Cook, Mark E.**; Jerome, Daria L.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 12 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9803081	A1	19980129	WO 1997-US1034	19970121
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5725873	A	19980310	US 1996-684785	19960722
CA 2260835	AA	19980129	CA 1997-2260835	19970121
CA 2260835	C	20041123		
AU 9718358	A1	19980210	AU 1997-18358	19970121
EP 929232	A1	19990721	EP 1997-903919	19970121
EP 929232	B1	20050330		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000515375	T2	20001121	JP 1998-506895	19970121
EP 1468614	A1	20041020	EP 2004-17207	19970121
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 291850	E	20050415	AT 1997-903919	19970121

PRIORITY APPLN. INFO.: US 1996-684785 A 19960722

EP 1997-903919 A3 19970121
WO 1997-US1034 W 19970121

AB A method of improving the efficiency of an animal to convert feed into desirable body tissue involves feeding the animal feed particles having an inner core of nutrients and an outer layer of fat containing antibodies which can protect the animal from contracting diseases that can adversely affect the animal's ability to grow or efficiently convert its feed into body tissue.

IC ICM A23K001-00
ICS A61K009-16

CC 17-12 (Food and Feed Chemistry)

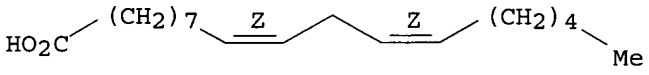
IT **60-33-3**, Linoleic acid, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(method of improving the growth or the efficiency of feed conversion of an animal and compns. for this use)

IT **60-33-3**, Linoleic acid, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(method of improving the growth or the efficiency of feed conversion of an animal and compns. for this use)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 31 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:631341 HCAPLUS
DOCUMENT NUMBER: 129:259788
TITLE: Method for maintaining an existing level of body fat
INVENTOR(S): **Cook, Mark E.**; Pariza, Michael W.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: U.S., 4 pp., Cont.-in-part of U. S. 5,554,646.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5814663	A	19980929	US 1996-736562	19960828
US 5554646	A	19960910	US 1994-297472	19940829
US 5760082	A	19980602	US 1996-659845	19960607
US 5760082	C1	20010306		
CA 2251563	AA	19971211	CA 1997-2251563	19970319
CA 2251563	C	20050104		
WO 9746230	A1	19971211	WO 1997-US4538	19970319

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ,

LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN,
YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,
GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,
ML, MR, NE, SN, TD, TG

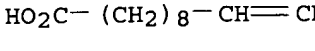
AU 9722187	A1	19980105	AU 1997-22187	19970319
AU 720553	B2	20000601		
EP 907360	A1	19990414	EP 1997-915179	19970319
EP 907360	B1	20041103		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001505530	T2	20010424	JP 1998-500552	19970319
EP 1438898	A2	20040721	EP 2004-9078	19970319
EP 1438898	A3	20050105		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 281160	E	20041115	AT 1997-915179	19970319
ES 2238718	T3	20050901	ES 1997-915179	19970319

PRIORITY APPLN. INFO.:	US 1994-297472	A2 19940829
	US 1996-659845	A2 19960607
	US 1992-875896	A2 19920429
	US 1993-7413	A2 19930122
	US 1996-736562	A 19960828
	EP 1997-915179	A3 19970319
	WO 1997-US4538	W 19970319

AB A method of maintaining an existing level of body fat or body weight in a human comprises administering a safe and effective amount of conjugated linoleic acid (CLA), e.g. 9,11- or 10,12-octadecadienoic acid, or an ester or salt thereof to maintain that level. CLA was prepared by chemical isomerization of linoleic acid, or prepared from safflower oil, by heating with KOH in ethylene glycol at 180° under N2 for 2 h, followed by cooling and neutralization. It may also be prepared from linoleic acid with linoleic acid isomerase from rumen bacteria, e.g. Butyrivibrio fibrisolvens. CLA may be administered as a parenteral liquid preparation, in dietetic margarine, or in food supplements.

IC ICM A61K031-20
INCL 514560000
CC 18-5 (Animal Nutrition)
IT **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid 26764-25-0, Octadecadienoic acid
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method for maintaining an existing level of body fat)
IT **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method for maintaining an existing level of body fat)
RN 1839-11-8 HCAPLUS
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)

RN 22880-03-1 HCAPLUS
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 32 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:372618 HCAPLUS
DOCUMENT NUMBER: 129:45299
TITLE: Dietetic foods containing conjugated linoleic acids
INVENTOR(S): **Cook, Mark E.**; Pariza, Michael W.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: U.S., 4 pp., Cont.-in-part of U. S. 5,554,646.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5760082	A	19980602	US 1996-659845	19960607
US 5760082	C1	20010306		
US 5554646	A	19960910	US 1994-297472	19940829
US 5814663	A	19980929	US 1996-736562	19960828
CA 2251563	AA	19971211	CA 1997-2251563	19970319
CA 2251563	C	20050104		
CA 2254716	AA	19971211	CA 1997-2254716	19970319
WO 9746118	A1	19971211	WO 1997-US4537	19970319
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
WO 9746230	A1	19971211	WO 1997-US4538	19970319
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9722187	A1	19980105	AU 1997-22187	19970319
AU 720553	B2	20000601		
AU 9723385	A1	19980105	AU 1997-23385	19970319
EP 907360	A1	19990414	EP 1997-915179	19970319
EP 907360	B1	20041103		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
EP 909132	A1	19990421	EP 1997-916126	19970319
EP 909132	B1	20040107		
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JP 2001505530	T2	20010424	JP 1998-500552	19970319
JP 2001505762	T2	20010508	JP 1998-500551	19970319
AT 257331	E	20040115	AT 1997-916126	19970319

EP 1438898	A2	20040721	EP 2004-9078	19970319
EP 1438898	A3	20050105		
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AT 281160	E	20041115	AT 1997-915179	19970319
ES 2238718	T3	20050901	ES 1997-915179	19970319

PRIORITY APPLN. INFO.:

US 1994-297472	A2	19940829
US 1992-875896	A2	19920429
US 1993-7413	A2	19930122
US 1996-659845	A2	19960607
US 1996-736562	A	19960828
EP 1997-915179	A3	19970319
WO 1997-US4537	W	19970319
WO 1997-US4538	W	19970319

AB Disclosed is a dietetic food which contains a safe and effective amount of conjugated linoleic acid (CLA). Linoleic acid and safflower oil were introduced into a mixture of ethylene glycol and KOH to obtain CLA. A liquid dietetic food for parenteral administration contained 0.5-10 mg of CLA per g of the lipid. Also, a milk-free, soy protein-based baby formula contained 0.03-0.5 g CLA per 100 cal serving.

IC ICM A61K031-20
ICS A61K031-22; A23D009-00

INCL 514560000

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 18

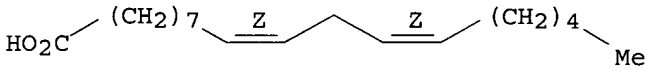
IT **60-33-3**, 9,12-Octadecadienoic acid (9Z,12Z)-, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(dietetic foods containing conjugated linoleic acids)

IT **60-33-3**, 9,12-Octadecadienoic acid (9Z,12Z)-, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(dietetic foods containing conjugated linoleic acids)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 33 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:	1997:812180 HCAPLUS
DOCUMENT NUMBER:	128:74781
TITLE:	Method for maintaining an existing level of body fat and/or body weight
INVENTOR(S):	**Cook, Mark E.**; Pariza, Michael W.
PATENT ASSIGNEE(S):	Wisconsin Alumni Research Foundation, USA
SOURCE:	PCT Int. Appl., 14 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	13

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 9746230	A1	19971211	WO 1997-US4538		19970319
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
US 5760082	A	19980602	US 1996-659845		19960607
US 5760082	C1	20010306			
US 5814663	A	19980929	US 1996-736562		19960828
AU 9722187	A1	19980105	AU 1997-22187		19970319
AU 720553	B2	20000601			
EP 907360	A1	19990414	EP 1997-915179		19970319
EP 907360	B1	20041103			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2001505530	T2	20010424	JP 1998-500552		19970319
AT 281160	E	20041115	AT 1997-915179		19970319
PRIORITY APPLN. INFO.:			US 1996-659845	A	19960607
			US 1996-736562	A	19960828
			US 1994-297472	A2	19940829
			WO 1997-US4538	W	19970319

AB A method of maintaining an existing level of body fat or body weight in a human, comprises administering a safe and effective amount of conjugated linoleic acid (CLA). A mixture containing linoleic acid, propylene glycol, and KOH was heated to 180° and the reaction mixture was treated with hexane. Hexane was removed to obtain a CLA, which contained 9,11-octadecadienoic acid, 10,12-octadecadienoic acid, and/or active isomers thereof.

IC ICM A61K031-20

CC 18-5 (Animal Nutrition)

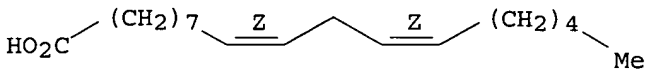
IT **60-33-3DP**, Linoleic acid, conjugates **1839-11-8DP**, 9,11-Octadecadienoic acid, isomers **1839-11-8P**, 9,11-Octadecadienoic acid **22880-03-1DP**, 10,12-Octadecadienoic acid, isomers **22880-03-1P**, 10,12-Octadecadienoic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugated linoleic acid for maintaining existing level of body fat and/or body weight)

IT **60-33-3DP**, Linoleic acid, conjugates **1839-11-8DP**, 9,11-Octadecadienoic acid, isomers **1839-11-8P**, 9,11-Octadecadienoic acid **22880-03-1DP**, 10,12-Octadecadienoic acid, isomers **22880-03-1P**, 10,12-Octadecadienoic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugated linoleic acid for maintaining existing level of body fat and/or body weight)

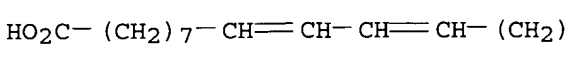
RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

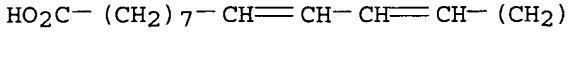
Double bond geometry as shown.



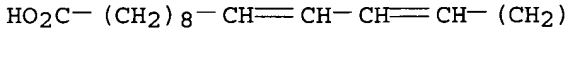
RN 1839-11-8 HCAPLUS
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



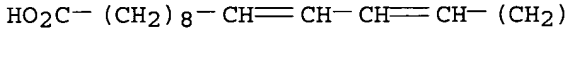
RN 1839-11-8 HCAPLUS
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 22880-03-1 HCAPLUS
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 22880-03-1 HCAPLUS
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



L169 ANSWER 34 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:684161 HCAPLUS
DOCUMENT NUMBER: 127:326529
TITLE: Conjugated linoleic acids for treating animals to maintain or increase CD-4 and CD-8 cell populations, and colon bacteria producing conjugated linoleic acids
INVENTOR(S): **Cook, Mark E.**; Pariza, Michael W.; Yang, Xiaoyun; Devoney, Danielle
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: U.S., 8 pp., Cont.-in-part of U.S. Ser. No. 875,896.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5674901	A	19971007	US 1995-458956	19950602
US 5430066	A	19950704	US 1992-875896	19920429
WO 9638137	A1	19961205	WO 1996-US3529	19960314
W: AL, AM, AT, AU, BB, BG, BR, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, IS, JP, KP, KR, LR, LV, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CG, GA				
AU 9652535	A1	19961218	AU 1996-52535	19960314
EP 831804	A1	19980401	EP 1996-908819	19960314
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 5856149	A	19990105	US 1996-759773	19961203

US 5827885	A	19981027	US 1997-912614		19970818
US 6020376	A	20000201	US 1998-170604		19981013
US 6060304	A	20000509	US 1998-170505		19981013
PRIORITY APPLN. INFO.:			US 1992-875896	A2	19920429
			US 1995-456988	B2	19950601
			US 1995-458956	A	19950602
			WO 1996-US3529	W	19960314
			US 1996-759773	A3	19961203
			US 1997-912614	A3	19970818

AB Methods of treating animals to maintain or elevate CD-4 and CD-8 cell levels and to prevent or alleviate the adverse effects on the animal caused by the production or exogenous administration of tumor necrosis factor (TNF) or by a virus consist of administering to the animal a safe and effective amount of a conjugated linoleic acid (CLA) or a substance which is converted in the animal into CLA. A method of preparing CLA employing a bacteria isolated from a rat colon also is disclosed.

IC A61K031-20
INCL 514558000
CC 1-7 (Pharmacology)
Section cross-reference(s): 18

IT **544-70-7P 7307-45-1P**
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); USES (Uses)
(conjugated linoleic acids for treating animals to maintain or increase CD-4 and CD-8 cell populations, and colon bacteria producing conjugated linoleic acids)

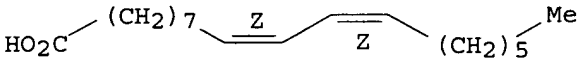
IT **60-33-3DP**, Linoleic acid, conjugated
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugated linoleic acids for treating animals to maintain or increase CD-4 and CD-8 cell populations, and colon bacteria producing conjugated linoleic acids)

IT **60-33-3**, Linoleic acid, biological studies **544-70-7D**, esters **7307-45-1D**, esters
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acids for treating animals to maintain or increase CD-4 and CD-8 cell populations, and colon bacteria producing conjugated linoleic acids)

IT **544-70-7P 7307-45-1P**
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); USES (Uses)
(conjugated linoleic acids for treating animals to maintain or increase CD-4 and CD-8 cell populations, and colon bacteria producing conjugated linoleic acids)

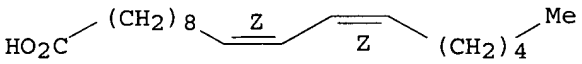
RN 544-70-7 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



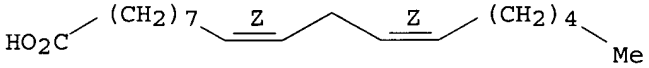
RN 7307-45-1 HCAPLUS
CN 10,12-Octadecadienoic acid, (10Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



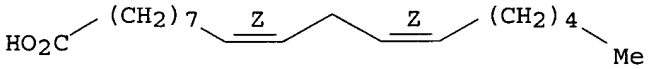
IT **60-33-3DP**, Linoleic acid, conjugated
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugated linoleic acids for treating animals to maintain or increase CD-4 and CD-8 cell populations, and colon bacteria producing conjugated linoleic acids)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



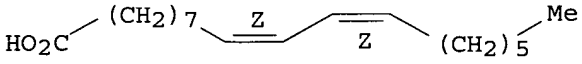
IT **60-33-3**, Linoleic acid, biological studies **544-70-7D**, esters **7307-45-1D**, esters
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acids for treating animals to maintain or increase CD-4 and CD-8 cell populations, and colon bacteria producing conjugated linoleic acids)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



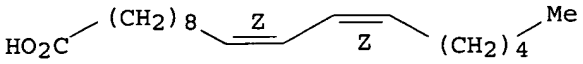
RN 544-70-7 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 7307-45-1 HCAPLUS
CN 10,12-Octadecadienoic acid, (10Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 35 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:90474 HCAPLUS
DOCUMENT NUMBER: 126:103150
TITLE: Methods for maintaining or elevating the CD-4 or CD-8 cell levels comprising the administration of conjugated linoleic acid; a new process for the manufacture of conjugated linoleic acid using Lactobacillus sp.
INVENTOR(S): **Cook, Mark E.**; Pariza, Michael W.; Yang, Xiaoyun; Devoney, Danielle
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9638137	A1	19961205	WO 1996-US3529	19960314
W: AL, AM, AT, AU, BB, BG, BR, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, IS, JP, KP, KR, LR, LV, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CG, GA				
US 5674901	A	19971007	US 1995-458956	19950602
AU 9652535	A1	19961218	AU 1996-52535	19960314
EP 831804	A1	19980401	EP 1996-908819	19960314
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.:

US 1995-458956	A	19950602
US 1992-875896	A2	19920429
WO 1996-US3529	W	19960314

AB Methods of treating animals to maintain or elevate CD-4 and CD-8 cell levels and to prevent or alleviate the adverse effects on the animal caused by the production or exogenous administration of tumor necrosis factor (TNF) or by a virus consist of administering to the animal a safe and effective amount of a conjugated linoleic acid (CLA) or a substance which is converted in the animal into CLA. A method of preparing CLA employing a bacterium isolated from rat colon is also disclosed.

IC ICM A61K031-20
ICS A23C009-20; A23C009-127; C12P007-64; A23L001-29

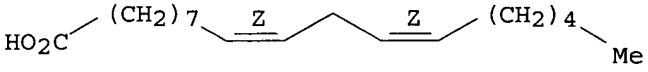
CC 16-2 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): 1, 18, 63

IT **60-33-3DP**, 9,12-Octadecadienoic acid (Z,Z)-, conjugates
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(new process for the manufacture of conjugated linoleic acid using Lactobacillus sp. for maintaining or elevating the CD-4 or CD-8 cell levels)

IT **60-33-3**, 9,12-Octadecadienoic acid (Z,Z)-, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(new process for the manufacture of conjugated linoleic acid using Lactobacillus sp. for maintaining or elevating the CD-4 or CD-8 cell

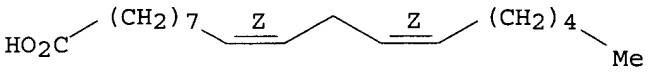
levels)
IT **60-33-3DP**, 9,12-Octadecadienoic acid (Z,Z)-, conjugates
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(new process for the manufacture of conjugated linoleic acid using Lactobacillus sp. for maintaining or elevating the CD-4 or CD-8 cell levels)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT **60-33-3**, 9,12-Octadecadienoic acid (Z,Z)-, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(new process for the manufacture of conjugated linoleic acid using Lactobacillus sp. for maintaining or elevating the CD-4 or CD-8 cell levels)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 36 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:340760 HCAPLUS
DOCUMENT NUMBER: 125:9474
TITLE: Method of reducing body fat in animals by the administration of conjugated linoleic acid
INVENTOR(S): **Cook, Mark E.**; Pariza, Michael W.; Park, Yeonhwa
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9606605	A1	19960307	WO 1995-US6191	19950512
W: JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5554646	A	19960910	US 1994-297472	19940829
EP 731699	A1	19960918	EP 1995-920484	19950512
EP 731699	B1	20020731		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10508189	T2	19980818	JP 1995-508714	19950512
JP 2992836	B2	19991220		

AT 221377 E 20020815 AT 1995-920484 19950512
PRIORITY APPLN. INFO.: US 1994-297472 A 19940829
US 1992-875896 A2 19920429
US 1993-7413 A2 19930122
WO 1995-US6191 W 19950512

AB A method of reducing body fat in animals comprises administration of a safe and effective amount of a conjugated linoleic acid (I). Methods of preserving or increasing the animal's body protein by administering the conjugated I also are disclosed. Mice were fed either with 5.0% corn oil and 0.5% conjugated I (prepared from I and saffron oil) or 5.5% corn oil as control for 28 days, then they were sacrificed and body fat and protein were analyzed. The average body fat and protein were 4.00, and 18.87 as compared with 9.72, and 17.67% for the controls.

IC ICM A61K031-20
ICS A23L001-30

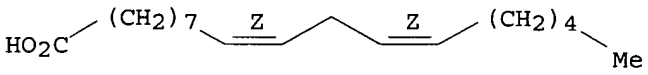
CC 18-5 (Animal Nutrition)

IT **60-33-3D**, Linoleic acid, conjugates **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(reducing body fat in animals by administration of conjugated linoleic acid)

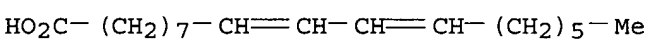
IT **60-33-3D**, Linoleic acid, conjugates **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(reducing body fat in animals by administration of conjugated linoleic acid)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

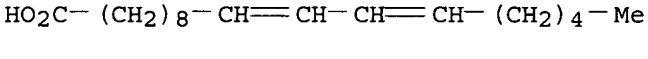
Double bond geometry as shown.



RN 1839-11-8 HCAPLUS
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 22880-03-1 HCAPLUS
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



L169 ANSWER 37 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:9931 HCAPLUS
DOCUMENT NUMBER: 126:113172
TITLE: Methods of attenuating the allergic response in animals

INVENTOR(S): **Cook, Mark E.**; Cook, Ellen B.; Stahl, James L.; Graziano, Frank M.; Pariza, Michael W.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5585400	A	19961217	US 1996-607498	19960227
CA 2245533	AA	19970904	CA 1996-2245533	19960827
WO 9732008	A1	19970904	WO 1996-US13798	19960827
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9669593	A1	19970916	AU 1996-69593	19960827
EP 883681	A1	19981216	EP 1996-930612	19960827
EP 883681	B1	20021023		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000506840	T2	20000606	JP 1997-530915	19960827
EP 1126022	A2	20010822	EP 2001-112782	19960827
EP 1126022	A3	20020403		
EP 1126022	B1	20041124		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 226434	E	20021115	AT 1996-930612	19960827
ES 2180792	T3	20030216	ES 1996-930612	19960827
AT 282954	E	20041215	AT 2001-112782	19960827

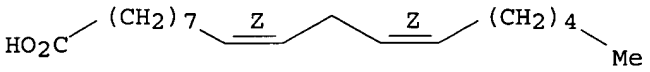
PRIORITY APPLN. INFO.:
US 1996-607498 A 19960227
EP 1996-930612 A3 19960827
WO 1996-US13798 W 19960827

AB Methods of treating animals to prevent or treat the adverse effects of type I or IgE mediated hypersensitivity in the animal comprises administering to the animal a safe and effective amount of a conjugated linoleic acid (CLA) or a substance which is converted in the animal into CLA. Methods of increasing the white blood cell count in a mammal and preserving white blood cells with CLA are also disclosed. Guinea pigs were fed 0.25 % CLA or control diets for 2 wk, then immunized with ovalbumin. The guinea pigs were euthenized and tracheae were collected; it was observed that tracheae from guinea pigs fed CLA were more stable in the superfusion system than tracheae of control-fed guinea pigs.

IC ICM A61K031-20
INCL 514560000
CC 1-7 (Pharmacology)
IT **60-33-3D**, Linoleic acid, conjugates
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acids for attenuating allergic responses)
IT **60-33-3D**, Linoleic acid, conjugates
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acids for attenuating allergic responses)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 38 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:580571 HCAPLUS
DOCUMENT NUMBER: 125:266030
TITLE: Method using a conjugated linoleic acid for reducing body fat in animals
INVENTOR(S): **Cook, Mark E.**; Pariza, Michael W.; Park, Yeonhwa
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: U.S., 4 pp., Cont.-in-part of U.S. 5,430,066.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

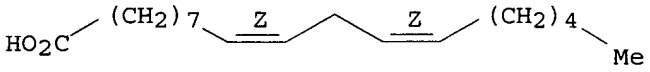
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5554646	A	19960910	US 1994-297472	19940829
US 5430066	A	19950704	US 1992-875896	19920429
US 5428072	A	19950627	US 1993-7413	19930122
WO 9606605	A1	19960307	WO 1995-US6191	19950512
W: JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 731699	A1	19960918	EP 1995-920484	19950512
EP 731699	B1	20020731		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10508189	T2	19980818	JP 1995-508714	19950512
JP 2992836	B2	19991220		
AT 221377	E	20020815	AT 1995-920484	19950512
ES 2180635	T3	20030216	ES 1995-920484	19950512
US 5760082	A	19980602	US 1996-659845	19960607
US 5760082	C1	20010306		
US 5814663	A	19980929	US 1996-736562	19960828

PRIORITY APPLN. INFO.:
US 1992-875896 A2 19920429
US 1993-7413 A2 19930122
US 1994-297472 A 19940829
WO 1995-US6191 W 19950512
US 1996-659845 A2 19960607

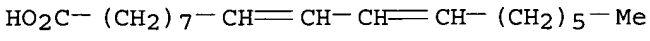
AB A method of reducing body fat comprises administering to the animal a safe and effective amount of a conjugated linoleic acid. Methods of preserving or increasing the animal's body protein by administering the conjugated linoleic acid also are disclosed.
IC ICM A61K031-20
ICS A61K031-23
INCL 514560000
CC 1-10 (Pharmacology)

Section cross-reference(s): 18
IT **60-33-3D**, Linoleic acid, conjugated
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acid for reducing body fat in animals)
IT **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: AGR (Agricultural use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acid for reducing body fat in animals)
IT **60-33-3**, Linoleic acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(conjugated linoleic acid for reducing body fat in animals, and conjugated linoleic acid preparation)
IT **60-33-3D**, Linoleic acid, conjugated
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acid for reducing body fat in animals)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

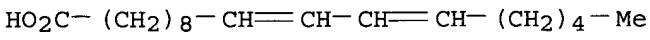
Double bond geometry as shown.



IT **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: AGR (Agricultural use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acid for reducing body fat in animals)
RN 1839-11-8 HCAPLUS
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)

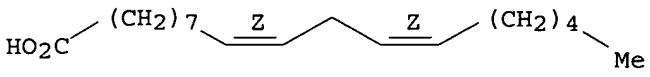


RN 22880-03-1 HCAPLUS
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



IT **60-33-3**, Linoleic acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(conjugated linoleic acid for reducing body fat in animals, and conjugated linoleic acid preparation)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

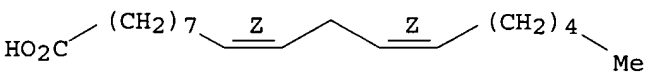


L169 ANSWER 39 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:256873 HCAPLUS
DOCUMENT NUMBER: 124:282023
TITLE: Method for controlling bird populations.
INVENTOR(S): **Cook, Mark E.**; Pariza, Michael W.; Lee, Kisun N.; Wentworth, Bernard C.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: U.S., 4 pp., Cont.-in-part of U.S. 5,430,066.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

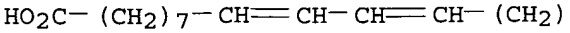
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5504114	A	19960402	US 1994-297471	19940829
US 5430066	A	19950704	US 1992-875896	19920429
US 5428072	A	19950627	US 1993-7413	19930122
PRIORITY APPLN. INFO.:			US 1992-875896 A2	19920429
			US 1993-7413 A2	19930122

AB THe method comprises administering to the female birds a conjugated linoleic acid (CLA) which prevents their eggs from hatching. Baits containing the conjugated linoleic acid also are disclosed. CLA is preferably prepared from linolenic acid and safflower oil.
IC ICM A61K031-20
INCL 514558000
CC 5-5 (Agrochemical Bioregulators)
IT **60-33-3D**, Linoleic acid, conjugated **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(bird-control agent)
IT **60-33-3D**, Linoleic acid, conjugated **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(bird-control agent)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

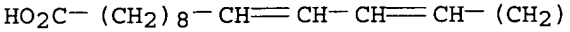
Double bond geometry as shown.



RN 1839-11-8 HCAPLUS
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



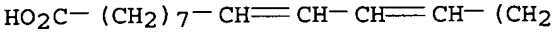
RN 22880-03-1 HCAPLUS
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



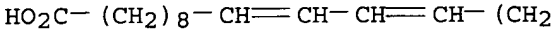
L169 ANSWER 40 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:705732 HCAPLUS
DOCUMENT NUMBER: 123:142667
TITLE: Method of increasing the efficiency of feed conversion in animals.
INVENTOR(S): **Cook, Mark E.**; Pariza, Michael W.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: U.S., 5 pp. Cont.-in-part of U.S. Ser. No. 875,896.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5428072	A	19950627	US 1993-7413	19930122
US 5430066	A	19950704	US 1992-875896	19920429
WO 9416690	A1	19940804	WO 1993-US11093	19931116
W: JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 680318	A1	19951108	EP 1994-902262	19931116
EP 680318	B1	20000426		
R: BE, CH, DE, ES, FR, GB, IE, IT, LI, NL, PT, SE				
JP 08505775	T2	19960625	JP 1993-516993	19931116
JP 2745245	B2	19980428		
US 5504114	A	19960402	US 1994-297471	19940829
US 5554646	A	19960910	US 1994-297472	19940829
PRIORITY APPLN. INFO.:			US 1992-875896 A2	19920429
			US 1993-7413 A	19930122
			WO 1993-US11093 W	19931116

AB A method of enhancing weight gain and feed efficiency in an animal comprises administering a conjugated linoleic acid, such as 9,11- or 10,12-octadecadienoic acid.
IC ICM A61K031-20
INCL 514560000
CC 18-6 (Animal Nutrition)
IT **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(agent for increasing the efficiency of feed conversion in animals)
IT **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(agent for increasing the efficiency of feed conversion in animals)
RN 1839-11-8 HCAPLUS
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 22880-03-1 HCAPLUS
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



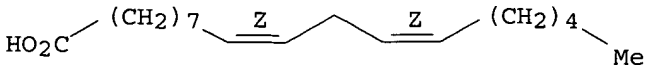
L169 ANSWER 41 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:570585 HCAPLUS
DOCUMENT NUMBER: 121:170585
TITLE: Method for increasing the efficiency of feed conversion in animals
INVENTOR(S): **Cook, Mark E.**; Pariza, Michael W.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9416690	A1	19940804	WO 1993-US11093	19931116
W: JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5428072	A	19950627	US 1993-7413	19930122
EP 680318	A1	19951108	EP 1994-902262	19931116
EP 680318	B1	20000426		
R: BE, CH, DE, ES, FR, GB, IE, IT, LI, NL, PT, SE				
JP 08505775	T2	19960625	JP 1993-516993	19931116
JP 2745245	B2	19980428		

PRIORITY APPLN. INFO.:
US 1993-7413 A 19930122
US 1992-875896 A2 19920429
WO 1993-US11093 W 19931116

AB A method of enhancing weight gain and feed efficiency in an animal comprises administering to the animal a safe and effective amount of a conjugated linoleic acid (CLA). One week old chicks were fed a standard control diet supplemented with 0.5% CLA for 2 wk the feed conversion (g feed required to produce 1 g increase in weight gain) was 1.46 as compared to 1.57 g feed.
IC ICM A61K031-20
CC 1-12 (Pharmacology)
IT **60-33-3D**, Linoleic acid, conjugates
RL: BIOL (Biological study)
(animal feed containing, for efficiency of feed conversion)
IT **60-33-3D**, Linoleic acid, conjugates
RL: BIOL (Biological study)
(animal feed containing, for efficiency of feed conversion)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

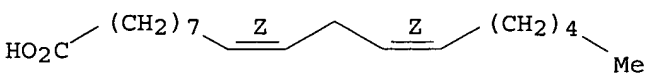


L169 ANSWER 42 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:133025 HCAPLUS
DOCUMENT NUMBER: 120:133025
TITLE: Linoleic acid as feed and food additive for preventing weight loss and anorexia, due to immune stimulation.
INVENTOR(S): **Cook, Mark E.**; Pariza, Michael W.
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA
SOURCE: Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 579901	A1	19940126	EP 1993-105105	19930327
EP 579901	B1	19960306		
R: BE, CH, DE, FR, GB, IE, LI				
US 5430066	A	19950704	US 1992-875896	19920429
PRIORITY APPLN. INFO.:			US 1992-875896 A	19920429

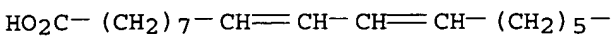
AB Animal feed or human food which contains added free linoleic acid or conjugated linoleic acids (CLA) can enhance growth and prevent anorexia and weight loss due to immune stimulation (e.g., endotoxin exposure) and the adverse effects of catabolic hormones (i.e., IL-1). The CLAs are 9,11- and 10,12-octadecadienoic acid. Feed supplementation with 0.5% CLA suppressed the neg. effect of inoculation with Escherichia coli 0111:B4 endotoxin on the weight gain of chicken.
IC ICM A61K031-20
ICS A23L001-30; A23K001-16
CC 18-6 (Animal Nutrition)
Section cross-reference(s): 17, 63
IT **60-33-3**, Linoleic acid, biological studies **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: BIOL (Biological study)
(immune stimulation-caused weight loss suppression by, in animals and humans)
IT **60-33-3**, Linoleic acid, biological studies **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid
RL: BIOL (Biological study)
(immune stimulation-caused weight loss suppression by, in animals and humans)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

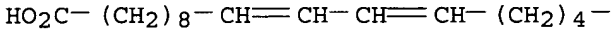


RN 1839-11-8 HCAPLUS

CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)

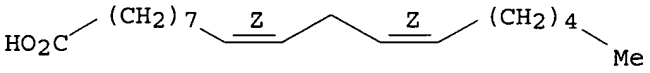


RN 22880-03-1 HCAPLUS
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



L169 ANSWER 43 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:528476 HCAPLUS
DOCUMENT NUMBER: 113:128476
TITLE: Lipoxygenases from Zea mays L. Purification and physicochemical characteristics
AUTHOR(S): Poca, Eva; Rabinovitch-Chable, Helene; **Cook-Moreau, Jeanne**; Pages, Montserrat; Rigaud, Michel
CORPORATE SOURCE: Fac. Med., Limoges, 87000, Fr.
SOURCE: Biochimica et Biophysica Acta, Lipids and Lipid Metabolism (1990), 1045(2), 107-14
CODEN: BBLLA6; ISSN: 0005-2760
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Maize seeds after 5 d germination contain ≥2 lipoxygenase isoenzymes, L1 and L2. Enzymes were extracted from acetone powder with 0.1M Na acetate (pH 4.5) buffer, supplemented with a nonionic detergent (0.1% Brij 99) and DETAPAC (0.1 mM). The pI of L1 is 6.40 and isoelec. focusing of L2 results 2 peaks with pI values in close proximity: 5.55 and 5.70. L1 and L2 are monomeric proteins of Mr 100,000 and 90,000, resp. Linoleic acid, 18:2(n - 6), is a good substrate of L2, but L1 has more affinity for α-linolenic acid, 18:3(n - 3). These kinetic studies could indicate a different functional role of the 2 isoenzymes.
CC 7-2 (Enzymes)
Section cross-reference(s): 11
IT **60-33-3**, 9,12-Octadecadienoic acid (Z,Z)-, reactions 463-40-1 506-26-3 506-32-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with lipoxygenase isoenzymes of corn, kinetics of)
IT **60-33-3**, 9,12-Octadecadienoic acid (Z,Z)-, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with lipoxygenase isoenzymes of corn, kinetics of)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 44 OF 56 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 2003153238 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12669815
TITLE: Dietary CLA decreased weight loss and extended survival following the onset of kidney failure in NZB/W F1 mice.
AUTHOR: Yang Mingder; **Cook Mark E**
CORPORATE SOURCE: Department of Animal Sciences, University of Wisconsin-Madison, Madison, Wisconsin 53706, USA.
SOURCE: Lipids, (2003 Jan) 38 (1) 21-4.
Journal code: 0060450. ISSN: 0024-4201.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200312
ENTRY DATE: Entered STN: 20030403
Last Updated on STN: 20031220
Entered Medline: 20031219

ABSTRACT:
In an earlier study, we showed that feeding CLA immediately after weaning prolonged survival of NZB/W F1 mice after onset of proteinuria. In the present study, the feeding of CLA was delayed until mice had developed proteinuria. Thirty NZB/W F1 mice were fed a regular rodent chow after weaning. Urine samples were collected to detect proteinuria. Once a mouse was proteinuria positive, it was then randomly assigned to a 0.5% CLA supplement semipurified diet or a control diet (supplement 0.5% corn oil). The next proteinuria positive mouse was then assigned to the opposite diet to which the first mouse was assigned. Mice fed the control diet lost 25% more body weight (13.0 g) than mice fed the CLA diet (9.7 g). Moreover, CLA-fed mice survived an average 1.7-fold longer (148 d) than mice fed the control diet (89 d) after the onset of proteinuria. This follow-up study confirmed that dietary CLA had a beneficial effect in the autoimmune NZB/W F1 mouse. In summary, the cachectic symptom of systemic lupus erythematosus was decreased by dietary CLA and survival days were increased over control group.

CONTROLLED TERM: Check Tags: Female
Animals
*Dietary Supplements
Disease Progression
*Kidney Failure: DH, diet therapy
Kidney Failure: PA, pathology
Linoleic Acid: AD, administration & dosage
***Linoleic Acid: TU, therapeutic use**
Linoleic Acids
*Lupus Erythematosus, Systemic: DH, diet therapy
Lupus Erythematosus, Systemic: PA, pathology
Mice
Mice, Inbred NZB
Proteinuria: DH, diet therapy
Research Support, Non-U.S. Gov't
Survival Analysis
Weight Loss: DE, drug effects
CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid)
CHEMICAL NAME: 0 (CLA fatty acid); 0 (Linoleic Acids)

L169 ANSWER 45 OF 56 MEDLINE on STN DUPLICATE 12
ACCESSION NUMBER: 2001059357 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10946824
TITLE: Dietary **conjugated linoleic acid** protects against end stage disease of systemic lupus erythematosus in the NZB/W F1 mouse.

AUTHOR: Yang M; Pariza M W; **Cook M E**
CORPORATE SOURCE: Department of Animal Science, University of Wisconsin-Madison, 53706-1284, USA.
SOURCE: Immunopharmacology and immunotoxicology, (2000 Aug) 22 (3) 433-49.
Journal code: 8800150. ISSN: 0892-3973.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200012
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20001228

ABSTRACT:
Conjugated linoleic acid (CLA) is a naturally occurring fatty acid with anti-carcinogenic, anti-atherosclerotic and immune-enhancing activities. Dietary CLA accelerated the onset of proteinuria in autoimmune-prone NZB/W F1 mice but did not affect anti-DNA antibody production. Body weight of the CLA group was decreased compared to the control group at the time proteinuria first developed. CLA group also had slightly earlier mortality than control fed mice, however the mean days of survival did not differ between CLA and control fed mice. Body weight loss between proteinuria onset and death was approximately twice as much in the control group as in the CLA group. Moreover, duration between proteinuria and death was longer in the CLA than in the control group. Our data suggested that dietary CLA may accelerate the autoimmune symptoms of NZB/W F1 mice, however, CLA protected against the disease related body weight loss and prolonged survival after proteinuria.

CONTROLLED TERM: Check Tags: Female
Animals
Antibodies, Antinuclear: BI, biosynthesis
*Dietary Fats, Unsaturated: PD, pharmacology
***Linoleic Acid: PD, pharmacology**
*Lupus Erythematosus, Systemic: DH, diet therapy
Lupus Erythematosus, Systemic: ET, etiology
Lupus Erythematosus, Systemic: PA, pathology
Mice
Mice, Inbred NZB
Proteinuria: ET, etiology
Research Support, Non-U.S. Gov't
Weight Loss: DE, drug effects
CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid)
CHEMICAL NAME: 0 (Antibodies, Antinuclear); 0 (Dietary Fats, Unsaturated)

L169 ANSWER 46 OF 56 MEDLINE on STN DUPLICATE 17
ACCESSION NUMBER: 97417028 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9270977
TITLE: Effect of **conjugated linoleic acid** on body composition in mice.
AUTHOR: Park Y; Albright K J; Liu W; Storkson J M; **Cook M E**; Pariza M W
CORPORATE SOURCE: Department of Food Microbiology and Toxicology, University of Wisconsin-Madison 53706, USA.
SOURCE: Lipids, (1997 Aug) 32 (8) 853-8.
Journal code: 0060450. ISSN: 0024-4201.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 199710
ENTRY DATE: Entered STN: 19971024
Last Updated on STN: 19980206
Entered Medline: 19971014

ABSTRACT:
The effects of **conjugated linoleic acid** (CLA) on body composition were investigated. ICR mice were fed a control diet containing 5.5% corn oil or a CLA-supplemented diet (5.0% corn oil plus 0.5% CLA). Mice fed CLA-supplemented diet exhibited 57% and 60% lower body fat and 5% and 14% increased lean body mass relative to controls ($P < 0.05$). Total carnitine palmitoyltransferase activity was increased by dietary CLA supplementation in both fat pad and skeletal muscle; the differences were significant for fat pad of fed mice and skeletal muscle of fasted mice. In cultured 3T3-L1 adipocytes CLA treatment (1 x 10(-4)M) significantly reduced heparin-releasable lipoprotein lipase activity (-66%) and the intracellular concentrations of triacylglyceride (-8%) and glycerol (-15%), but significantly increased free glycerol in the culture medium (+22%) compared to control ($P < 0.05$). The effects of CLA on body composition appear to be due in part to reduced fat deposition and increased lipolysis in adipocytes, possibly coupled with enhanced fatty acid oxidation in both muscle cells and adipocytes.

CONTROLLED TERM: Check Tags: Female; Male
3T3 Cells
Adipocytes: EN, enzymology
Adipose Tissue: EN, enzymology
Animals
*Body Composition: DE, drug effects
Body Weight: DE, drug effects
Carnitine O-Palmitoyltransferase: ME, metabolism
Corn Oil: AD, administration & dosage
Diet
Dietary Fats: AD, administration & dosage
*Dietary Fats: PD, pharmacology
Glycerol: ME, metabolism
Linoleic Acids: AD, administration & dosage
***Linoleic Acids: PD, pharmacology**
Lipolysis: DE, drug effects
Lipoprotein Lipase: AI, antagonists & inhibitors
Liver: EN, enzymology
Mice
Mice, Inbred ICR
Muscles: EN, enzymology
Research Support, Non-U.S. Gov't

CAS REGISTRY NO.: 56-81-5 (Glycerol); 8001-30-7 (Corn Oil)
CHEMICAL NAME: 0 (Dietary Fats); 0 (Linoleic Acids); EC 2.3.1.21 (Carnitine O-Palmitoyltransferase); EC 3.1.1.34 (Lipoprotein Lipase)

L169 ANSWER 47 OF 56 MEDLINE on STN
ACCESSION NUMBER: 2005004947 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15625711
TITLE: **Conjugated linoleic acid** preserves gastrocnemius muscle mass in mice bearing the colon-26 adenocarcinoma.
AUTHOR: Graves Erin; Hitt Andrew; Pariza Michael W; **Cook Mark E**; McCarthy Donna O
CORPORATE SOURCE: National Institute of Nursing Research, National Institutes of Health, Bethesda, MD, USA.
SOURCE: Research in nursing & health, (2005 Feb) 28 (1) 48-55. Journal code: 7806136. ISSN: 0160-6891.
PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200503
ENTRY DATE: Entered STN: 20050105
Last Updated on STN: 20050311
Entered Medline: 20050310

ABSTRACT:
Cancer cachexia is a syndrome of weight loss, muscle wasting, fatigue, and anorexia that occurs in patients with advanced or recurrent solid tumor disease. Tumor necrosis factor-alpha (TNFalpha) and prostaglandin E2 (PGE2) have been implicated in the biology of cachexia and serve as possible targets for treatment of this condition. **Conjugated linoleic ***acid*** (CLA) is a polyunsaturated fatty acid that alters the synthesis of PGE2 and reduces the negative effects of TNF on body weight of healthy mice. We hypothesized that a diet supplemented with .5% CLA might reduce muscle wasting in mice bearing the colon-26 adenocarcinoma, an animal model of cancer cachexia. CLA preserved gastrocnemius muscle mass and reduced TNF receptors in muscle of tumor-bearing mice. These data suggest that CLA may preserve muscle mass by reducing the catabolic effects of TNF on skeletal muscle.

CONTROLLED TERM: Check Tags: Female
Adenocarcinoma: CO, complications
Adenocarcinoma: PA, pathology
Animals
*Body Weight: DE, drug effects
*Cachexia: DT, drug therapy
Cachexia: ET, etiology
Colonic Neoplasms: CO, complications
Colonic Neoplasms: PA, pathology
Disease Models, Animal
Enzyme-Linked Immunosorbent Assay
***Linoleic Acids, Conjugated: PD, pharmacology**
Mice
*Muscle, Skeletal: DE, drug effects
Muscle, Skeletal: ME, metabolism
Neoplasms, Experimental: CO, complications
Neoplasms, Experimental: PA, pathology
Tumor Cells, Cultured
CHEMICAL NAME: 0 (Linoleic Acids, Conjugated)

L169 ANSWER 48 OF 56 MEDLINE on STN
ACCESSION NUMBER: 2001158731 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11171673
TITLE: CLA reduces antigen-induced histamine and PGE(2) release from sensitized guinea pig tracheae.
AUTHOR: Whigham L D; Cook E B; Stahl J L; Saban R; Bjorling D E; Pariza M W; **Cook M E**
CORPORATE SOURCE: Department of Nutritional Sciences, Madison, Wisconsin 53706, USA.
SOURCE: American journal of physiology. Regulatory, integrative and comparative physiology, (2001 Mar) 280 (3) R908-12.
Journal code: 100901230. ISSN: 0363-6119.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200103
ENTRY DATE: Entered STN: 20010404
Last Updated on STN: 20010404

Entered Medline: 20010322

ABSTRACT:
Conjugated linoleic acid (CLA) has been shown to enhance immune reactions such as lymphocyte blastogenesis and delayed-type hypersensitivity. We investigated the role of CLA in type I (immediate) hypersensitivity, using a guinea pig tracheal superfusion model for measuring antigen-induced airway smooth muscle contraction and inflammatory mediator release. Female Hartley guinea pigs were fed a diet supplemented with 0.25 g corn oil or linoleic acid/100 g of diet (control) or 0.25 g CLA/100 g of diet for at least 1 wk before and during active sensitization to ovalbumin antigen. Tracheae from sensitized guinea pigs were suspended in air-filled water-jacketed (37 degrees C) tissue chambers in a superfusion apparatus. Tracheae were superfused with buffer containing antigen, and tissue contraction was recorded. Superfusate was collected at 90-s intervals for evaluation of histamine and PGE(2) release. CLA did not affect antigen-induced tracheal contractions when expressed as gram contraction per gram tissue. CLA significantly reduced antigen-induced histamine and PGE(2) release. CLA appears to decrease release of some inflammatory mediators during type I hypersensitivity reactions.

CONTROLLED TERM: Check Tags: Female
Animals
*Antigens: IM, immunology
Carbachol: PD, pharmacology
Dietary Fats: AD, administration & dosage
*Dinoprostone: SE, secretion
Eating
Guinea Pigs
*Histamine Release: DE, drug effects
*Hypersensitivity, Immediate: IM, immunology
Hypersensitivity, Immediate: PP, physiopathology
Linoleic Acid: AD, administration & dosage
Linoleic Acid: AN, analysis
***Linoleic Acid: PD, pharmacology**
Muscle Contraction: DE, drug effects
Ovalbumin: IM, immunology
Trachea: CH, chemistry
*Trachea: IM, immunology
*Trachea: PH, physiology
Weight Gain

CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 363-24-6 (Dinoprostone); 51-83-2 (Carbachol); 9006-59-1 (Ovalbumin)

CHEMICAL NAME: 0 (Antigens); 0 (Dietary Fats)

L169 ANSWER 49 OF 56 MEDLINE on STN
ACCESSION NUMBER: 1999106683 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9890009
TITLE: Nutritional effects on vaccination.
AUTHOR: **Cook M E**
CORPORATE SOURCE: Animal Sciences Department, University of Wisconsin, Madison 53706, USA.
SOURCE: Advances in veterinary medicine, (1999) 41 53-9. Ref: 35
Journal code: 9714525. ISSN: 1093-975X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199901
ENTRY DATE: Entered STN: 19990209

Last Updated on STN: 19990209
Entered Medline: 19990128

ABSTRACT:
Immune-induced cachetic response is an example of a biological opportunity to develop technologies that ensure improved performance in animal agriculture. We have estimated that reduced performance of immune stimulated animals, whether by exposure to conventional environments or through vaccination, results in more than U.S. $500 million in reduced productivity. Nontraditional methods to alleviate the adverse effects of the immune response provide an opportunity for those skilled in the art of vaccinology and immunology to develop new technologies and feeding practices. Too often, biologists are blinded by the limits of their disciplines and rarely venture to the fringe of their field to engage in collaborations that at first glance do not seem logical. The examples of CLA and antigastrointestinal peptides suggest that new opportunities await in ensuring that the cost of the immune response is minimized and that new approaches to animal agriculture await discovery.

CONTROLLED TERM: *Animal Nutrition
Animals
Anorexia: IM, immunology
*Anorexia: VE, veterinary
Cholecystokinin: PH, physiology
Drug Design
Linoleic Acid
Vaccination: AE, adverse effects
*Vaccination: VE, veterinary

CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 9011-97-6 (Cholecystokinin)

L169 ANSWER 50 OF 56 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2002222459 EMBASE

TITLE: Decreased antigen-induced eicosanoid release in **conjugated linoleic acid**-fed guinea pigs.

AUTHOR: Whigham L.D.; Higbee A.; Bjorling D.E.; Park Y.; Pariza M.W.; **Cook M.E.**

CORPORATE SOURCE: M.E. Cook, Animal Sciences Dept., Univ. of Wisconsin-Madison, 1675 Observatory Drive, Madison, WI 53706, United States. mcook@facstaff.wisc.edu

SOURCE: American Journal of Physiology - Regulatory Integrative and Comparative Physiology, (2002) Vol. 282, No. 4 51-4, pp. R1104-R1112.
Refs: 43
ISSN: 0363-6119 CODEN: AJPRDO

COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 026 Immunology, Serology and Transplantation
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20020711
Last Updated on STN: 20020711

ABSTRACT: This study investigated the capacity of **conjugated** ***linoleic*** **acids** (CLA) to reduce ex vivo antigen-induced release of eicosanoids in a type I hypersensitivity model. Guinea pigs were fed a diet containing 0.25% safflower oil (control) or 0.25% CLA [43% trans (t)10, cis (c)12; 41% c9, t11/t9, c11 18:2] for 2 wk before and during sensitization to ovalbumin (OVA). Lungs, tracheas, and bladders were incubated in physiological saline solution (PSS) for 1 h (basal mediator release) and challenged with OVA (0.01 g/1 PSS) for 1 h (mediator release in response to antigen). Eicosanoids were quantified by HPLC/tandem mass spectrometry or enzyme immunoassay. CLA feeding resulted in no change in basal release but

decreased eicosanoid release from sensitized tissues in response to antigen challenge in the following manner: thromboxane B(2), 6-keto-prostaglandin (PG)F(1α), PGF(2α), PGD(2), PGE(2) by 57-75% in lung, 45-65% in trachea, and 38-60% in bladder; and leukotriene C(4)/D(4)/E(4) by 87, 90, and 50% in lung, trachea, and bladder, respectively. These data indicate that feeding CLA reduces lipid-derived inflammatory mediators produced by this type I hypersensitivity model.

CONTROLLED TERM: Medical Descriptors:
*prostaglandin release
*fat intake
guinea pig
immediate type hypersensitivity
lung
trachea
bladder
enzyme immunoassay
inflammation
antigen detection
nonhuman
female
animal experiment
controlled study
animal tissue
article
priority journal
Drug Descriptors:
*antigen
*icosanoid: EC, endogenous compound
***linoleic acid**
safflower oil
ovalbumin
thromboxane B2
6 oxoprostaglandin F1 alpha
prostaglandin F2 alpha
prostaglandin D2
prostaglandin E2

CAS REGISTRY NO.: (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (safflower oil) 8001-23-8; (ovalbumin) 77466-29-6; (thromboxane B2) 54397-85-2; (prostaglandin F2 alpha) 551-11-1; (prostaglandin D2) 41598-07-6; (prostaglandin E2) 363-24-6

L169 ANSWER 51 OF 56 EMBASE

ACCESSION NUMBER: 2001195833 EMBASE

TITLE: CLA reduces antigen-induced histamine and PGE(2) release from sensitized guinea pig tracheae.

AUTHOR: Whigham L.D.; Cook E.B.; Stahl J.L.; Saban R.; Bjorling D.E.; Pariza M.W.; **Cook M.E.**

CORPORATE SOURCE: M.E. Cook, Dept. of Animal Sciences, 1675 Observatory Drive, Madison, WI 53706, United States. mcook@facstaff.wisc.edu

SOURCE: American Journal of Physiology - Regulatory Integrative and Comparative Physiology, (2001) Vol. 280, No. 3 49-3, pp. R908-R912.
Refs: 33
ISSN: 0363-6119 CODEN: AJPRDO

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20010614
Last Updated on STN: 20010614

ABSTRACT: **Conjugated linoleic acid** (CLA) has been shown to enhance immune reactions such as lymphocyte blastogenesis and delayed-type hypersensitivity. We investigated the role of CLA in type I (immediate) hypersensitivity, using a guinea pig tracheal superfusion model for measuring antigen-induced airway smooth muscle contraction and inflammatory mediator release. Female Hartley guinea pigs were fed a diet supplemented with 0.25 g corn oil or linoleic acid/100 g of diet (control) or 0.25 g CLA/100 g of diet for at least 1 wk before and during active sensitization to ovalbumin antigen. Tracheae from sensitized guinea pigs were suspended in air-filled water-jacketed (37°C) tissue chambers in a superfusion apparatus. Tracheae were superfused with buffer containing antigen, and tissue contraction was recorded. Superfusate was collected at 90-s intervals for evaluation of histamine and PGE(2) release. CLA did not affect antigen-induced tracheal contractions when expressed as gram contraction per gram tissue. CLA significantly reduced antigen-induced histamine and PGE(2) release. CLA appears to decrease release of some inflammatory mediators during type I hypersensitivity reactions.

CONTROLLED TERM: Medical Descriptors:
*immediate type hypersensitivity
*trachea
guinea pig
lymphocyte
lymphocyte transformation
delayed hypersensitivity
dietary intake
diet supplementation
prostaglandin release
histamine release
trachea muscle
smooth muscle contraction
nonhuman
female
animal experiment
controlled study
article
priority journal
Drug Descriptors:
***linoleic acid: DV, drug development**
***conjugated linoleic acid: DV, drug development**
antigen
histamine: EC, endogenous compound
prostaglandin E2: EC, endogenous compound
unclassified drug
CAS REGISTRY NO.: (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (histamine) 51-45-6, 56-92-8, 93443-21-1; (prostaglandin E2) 363-24-6

L169 ANSWER 52 OF 56 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:534462 BIOSIS
DOCUMENT NUMBER: PREV200510319965
TITLE: Conditions in which t10, c12 conjugated linoleic acid (CLA) is proinflammatory.

AUTHOR(S): **Butz, Daniel E.** [Reprint Author]; **Cook, Mark E.**
CORPORATE SOURCE: Univ Wisconsin, Madison, WI 53706 USA
SOURCE: FASEB Journal, (MAR 7 2005) Vol. 19, No. 5, Suppl. S, Part 2, pp. A1345.
Meeting Info.: Experimental Biology 2005 Meeting/35th International Congress of Physiological Sciences. San Diego, CA, USA. March 31 -April 06, 2005. Amer Assoc Anatomists; Amer Assoc Immunologists; Amer Physiol Soc; Amer Soc Biochem & Mol Biol; Amer Soc Investigat Pathol; Amer Soc Nutr Sci; Amer Soc Pharmacol & Expt Therapeut; Int Union Physiol Sci.
CODEN: FAJOEC. ISSN: 0892-6638.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 1 Dec 2005
Last Updated on STN: 1 Dec 2005

ABSTRACT:t10,c12 conjugated linoleic acid (CLA) is a known inhibitor of cyclooxygnease-2 (COX-2) and hence should be anti-inflammatory. The objective of this study was to determine the effect of t10,c12 CLA on inflammation in collagen induced arthritis (CIA). Male DBA/1 mice were immunized against chick type II collagen(CII) on 0d. On 21d mice were fed t10,c12 CLA, CLA90 (50:50 mix of c9,t11 andt10,c12 CLA), corn oil (CO), or CO + indomethacin (indo, a known COX inhibitor) injections (daily 26d to 35d), and were given an i.p. booster injection. Plasma anti-CII antibody was measured on day 35. Peak inflammation developed within 10 days of the booster injection. CO and CLA fed mice exhibited similar joint inflammation, which was eliminated in CO fed mice by indo treatment, whilet10,c12 CLA fed mice had a 2-fold increase in inflammation. The t10,c12 CLA fed and indo groups had CII-IgG(2a) titers 2x higher than the CO group, and the group fed CLA90 had an intermediate titer. These data suggest that the pro-inflammatory action of dietary t10,c12 CLA was independent of COX-2 andCII-IgG(2a) antibody titer, and c9,t11 CLA combined with t10,c12 CLAwill prevent the pro-inflammatory effect of t10,c12 CLA. We conclude that thet10,c12 CLA isomer when fed alone increases inflammation in CIA, and that thet10,c12 isomer should not be feed in the absence of the c9,t11 CLA isomer.

CONCEPT CODE: General biology - Symposia, transactions and proceedings 00520
Biochemistry studies - General 10060
Biochemistry studies - Proteins, peptides and amino acids 10064
Pathology - Therapy 12512
Nutrition - General studies, nutritional status and methods 13202
Blood - Blood and lymph studies 15002
Blood - Blood cell studies 15004
Bones, joints, fasciae, connective and adipose tissue - Pathology 18006
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012
Pharmacology - Immunological processes and allergy 22018
Immunology - General and methods 34502
Immunology - Immunopathology, tissue immunology 34508
INDEX TERMS: Major Concepts
Immune System (Chemical Coordination and Homeostasis); Nutrition
INDEX TERMS: Parts, Structures, & Systems of Organisms
plasma: blood and lymphatics
INDEX TERMS: Diseases

arthritis: immune system disease, joint disease
Arthritis (MeSH)

INDEX TERMS: Chemicals & Biochemicals
type II collagen; indomethacin: enzyme inhibitor-drug, antiarthritic-drug, immunologic-drug, antiinflammatory-drug; conjugated linoleic acid: dietary intake

INDEX TERMS: Miscellaneous Descriptors
corn oil: fats and oils

ORGANISM: Classifier
Galliformes 85536
Super Taxa
Aves; Vertebrata; Chordata; Animalia
Organism Name
chicken (common): chick
Taxa Notes
Animals, Birds, Chordates, Nonhuman Vertebrates, Vertebrates

ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
DBA/1 mouse (common): male
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: 53-86-1 (indomethacin)
121250-47-3 (conjugated linoleic acid)

L169 ANSWER 53 OF 56 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2004:287817 BIOSIS
DOCUMENT NUMBER: PREV200400286574
TITLE: Conjugated Linoleic Acid (CLA) Reduces Inflammation in Anti-Type II Collagen Monoclonal Antibody-Induced Arthritis in Mice.
AUTHOR(S): **Butz, Daniel E** [Reprint Author]; **Cook, Mark E**
CORPORATE SOURCE: Nutritional Sciences, University of Wisconsin - Madison, 1675 Observatory Dr., Madison, Wisconsin, 53706, USA
debutz@wisc.edu
SOURCE: FASEB Journal, (2004) Vol. 18, No. 4-5, pp. Abst. 133.8. http://www.fasebj.org/. e-file.
Meeting Info.: FASEB Meeting on Experimental Biology: Translating the Genome. Washington, District of Columbia, USA. April 17-21, 2004. FASEB.
ISSN: 0892-6638 (ISSN print).
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Jun 2004
Last Updated on STN: 16 Jun 2004

ABSTRACT:A cyclooxygenase-2 (COX-2) product, prostaglandin E2, is a potent inflammatory mediator. Previous work has shown that CLA is a potent COX inhibitor both in vitro and in vivo. The objective of this study was to determine if CLA could reduce inflammation in the mouse anti-collagen monoclonal antibody-induced arthritis model. Male BALB/c mice were fed a semi-purified diet supplemented with 0.5% CLA or corn oil (CO). After 3 weeks of feeding, mice were injected with 2mg anti-mouse type II collagen antibodies

in 200 (l PBS i.v. Arthritis was induced 48 hours later with 25 (g of lipopolysaccharide in 100 (l PBS i.p. Clinical arthritis score was measured for 10 days following injections using previously established parameters. After induction of a moderate inflammation, mice fed a CLA diet exhibited significantly less swelling (CLA approximately 65% of controls) in affected paws compared to CO fed controls after 5 and 6 days. Using the same feeding procedure in an alternate arthritis model we induced inflammation using the collagen induced arthritis (CIA) protocol. Male DBA/1J mice were immunized against type II collagen, and plasma anti-CII antibody was measured. CLA fed mice had a higher anti-CII IgG2a and lower anti-CII IgG1 titer suggesting a Th1 response. We did not see a difference in clinical arthritis score in affected paws in the CIA model. These studies suggest that feeding CLA in the CIA model may favor a Th1 response, but will reduce inflammation when anti-CII antibodies are used to induce arthritis. Together these studies suggest that CLA&39;s effect on arthritis associated inflammation is anti-inflammatory, and not due to T helper function. CLA feeding may have anti-inflammatory properties that could be therapeutic, but not preventive in arthritis.

CONCEPT CODE: General biology - Symposia, transactions and proceedings 00520
Biochemistry studies - Proteins, peptides and amino acids 10064
Pathology - Therapy 12512
Bones, joints, fasciae, connective and adipose tissue - Pathology 18006
Pharmacology - General 22002
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012
Pharmacology - Immunological processes and allergy 22018
Toxicology - General and methods 22501
Immunology - General and methods 34502

INDEX TERMS: Major Concepts
Immune System (Chemical Coordination and Homeostasis); Pharmacology

INDEX TERMS: Diseases
arthritis: joint disease, chemically-induced
Arthritis (MeSH)

INDEX TERMS: Chemicals & Biochemicals
IgG1 [immunoglobulin G1]; IgG2a [immunoglobulin G2a]; anti-type II collagen monoclonal antibody; conjugated linoleic acid: antiarthritic-drug, antiinflammatory-drug, immunologic-drug; type II collagen

INDEX TERMS: Miscellaneous Descriptors
Th1 response [T helper 1 response]; inflammation

ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
mouse (common): animal model, strain-BALB/c, strain-DBA/1J, male
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: 1839-11-8Q (conjugated linoleic acid)
121250-47-3Q (conjugated linoleic acid)

L169 ANSWER 54 OF 56 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:283551 BIOSIS
DOCUMENT NUMBER: PREV200400277158

TITLE: t10, c12 Conjugated Linoleic Acid (CLA) Fed Mice Exhibit Compensatory Growth After Immune Challenge.

AUTHOR(S): **Butz, Daniel E** [Reprint Author]; Trott, David L; Yang, Mingder; **Cook, Mark E**

CORPORATE SOURCE: Nutritional Sciences, University of Wisconsin - Madison, 1675 Observatory Dr., Madison, Wisconsin, 53706, USA debutz@wisc.edu

SOURCE: FASEB Journal, (2004) Vol. 18, No. 4-5, pp. Abst. 133.10. http://www.fasebj.org/. e-file.
Meeting Info.: FASEB Meeting on Experimental Biology: Translating the Genome. Washington, District of Columbia, USA. April 17-21, 2004. FASEB.
ISSN: 0892-6638 (ISSN print).

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 9 Jun 2004
Last Updated on STN: 9 Jun 2004

ABSTRACT:Previous work demonstrated that feeding combined isomers of CLA partially overcame endotoxin-induced growth depression. It is known that c9,t11 CLA reduces tumor necrosis factor (TNF) secretion, and t10,c12 CLA inhibits prostaglandin synthesis in RAW 264.7 macrophages. The objective of this study was to determine which isomer of CLA protected against endotoxin-induced growth depression. Weanling, male, BALB/c mice were fed a semi-purified diet supplemented with 0.25% c9,t11 or t10,c12 CLA or olive oil (OO, 80% c9,C18:1). After 15 days of feeding mice were challenged with 1mg/kg lipopolysaccharide (LPS) or vehicle i.p. Body weight and feed intake were measured for 7 days after injection. We observed a weight loss of 6% of initial body weight 24 hours after injection in all LPS stimulated groups. After maximal weight loss in stimulated groups the t10,c12 CLA fed group regained weight significantly faster than did the OO and the c9,t11 CLA fed groups. After maximal weight loss the growth rate in the stimulated t10,c12 CLA group was significantly greater than the stimulated OO fed controls. The c9,t11 CLA fed group had a growth rate intermediate to that of the stimulated OO and t10,c12 CLA fed groups (possibly due to t10,c12 CLA isomer contamination). The t10,c12 CLA fed group recovered initial body weight after 67 hours and caught up to the sham injected control group by 170 hours. The c9,t11 CLA and OO fed groups recovered initial body weight by 124 hours and remained approximately 1 day of growth behind the sham injected group throughout the experiment. While we failed to show that CLA isomers prevent immune induced growth depression, we did demonstrate that t10,c12 CLA fed mice exhibit compensatory growth after immune stimulation.

CONCEPT CODE: General biology - Symposia, transactions and proceedings 00520
Biochemistry studies - Lipids 10066
Biochemistry studies - Carbohydrates 10068
Nutrition - General studies, nutritional status and methods 13202
Development and Embryology - General and descriptive 25502

INDEX TERMS: Major Concepts
Development; Nutrition

INDEX TERMS: Chemicals & Biochemicals
cis 9,trans 11 conjugated linoleic acid: dietary supplement; lipopolysaccharide; trans 10,cis 12 conjugated linoleic acid: dietary supplement

INDEX TERMS: Miscellaneous Descriptors
body weight; compensatory growth; feed intake; immune induced growth depression; olive oil: fats and oils

ORGANISM: Classifier

Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Balb/C mouse (common): animal model, weanling, male
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
REGISTRY NUMBER: 2420-56-6 (trans 10,cis 12 conjugated linoleic acid)

L169 ANSWER 55 OF 56 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:370195 BIOSIS
DOCUMENT NUMBER: PREV200200370195
TITLE: CLA modulates immune induced cachexia after immunization with arthritogenic collagen type II.
AUTHOR(S): **Butz, Daniel E.** [Reprint author]; **Cook, Mark E.**
CORPORATE SOURCE: Nutritional Science, University of Wisconsin-Madison, 1675 Observatory Dr., Madison, WI, 53706, USA
SOURCE: FASEB Journal, (March 22, 2002) Vol. 16, No. 5, pp. A985. print.
Meeting Info.: Annual Meeting of Professional Research Scientists on Experimental Biology. New Orleans, Louisiana, USA. April 20-24, 2002.
CODEN: FAJOEC. ISSN: 0892-6638.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Jul 2002
Last Updated on STN: 3 Jul 2002
ABSTRACT:Conjugated linoleic acid (CLA) is well known to prevent immune induced body wasting and anorexia. In a study investigating the role of CLA in arthritic inflammatory disease, the cachetic effects of immune stimulation depended on the state of the immune response and/or the nature of the immunogen. Male DBA/1 mice (n=16) were fed a semi-purified diet supplemented with either corn oil or CLA (41% c9,t11 and 42%t10, c12). After fed treatment diet for 3 weeks mice were immunized with arthritogeinic chicken collagen type II (C-II). On day zero 100 ?g C-II in Freund?s complete adjuvant was injected s.c. in the base of the tail. On day 21,100 ?g C-II in Freund?s incomplete adjuvant was given i.p. Feed and body weights were measured every 3 to 4 days. CLA fed mice had significantly decreased weight loss and increased feed intake after primary immunization, when compared to corn oil fed controls. However, upon secondary immunization CLA animals lost more weight than did controls, while consuming slightly more feed. This study confirms CLAs protective effect in endotoxin-induced cachexia, but also suggest the nature of the immunogen alters CLAs role in immune induced cachexia.
CONCEPT CODE: General biology - Symposia, transactions and proceedings 00520
Nutrition - General studies, nutritional status and methods 13202
Nutrition - Malnutrition and obesity 13203
Bones, joints, fasciae, connective and adipose tissue - Pathology 18006
Immunology - General and methods 34502
Immunology - Immunopathology, tissue immunology 34508
INDEX TERMS: Major Concepts
Immune System (Chemical Coordination and Homeostasis); Nutrition
INDEX TERMS: Diseases

arthritic inflammatory disease: immune system disease, joint disease

INDEX TERMS: Diseases
immune induced cachexia: immune system disease, nutritional disease

INDEX TERMS: Chemicals & Biochemicals
arthritogenic collagen type II; conjugated linoleic acid; endotoxin

INDEX TERMS: Methods & Equipment
arthritogenic collagen type II immunization: immunization method

INDEX TERMS: Miscellaneous Descriptors
Meeting Abstract

ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
mouse: DBA/1, male
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: 1839-11-8Q (conjugated linoleic acid)
121250-47-3Q (conjugated linoleic acid)

L169 ANSWER 56 OF 56 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1999:170198 BIOSIS
DOCUMENT NUMBER: PREV199900170198
TITLE: The effect of dietary **conjugated linoleic acid** on NZB/W F1 mice, an animal model for human **systemic lupus erythematosus.**
AUTHOR(S): Yang, M.; Pariza, M. W.; **Cook, M. F.**
CORPORATE SOURCE: Univ. Wisconsin, Madison, WI 53706, USA
SOURCE: FASEB Journal, (March 12, 1999) Vol. 13, No. 4 PART 1, pp. A588. print.
Meeting Info.: Annual Meeting of the Professional Research Scientists for Experimental Biology 99. Washington, D.C., USA. April 17-21, 1999.
CODEN: FAJOEC. ISSN: 0892-6638.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 19 Apr 1999
Last Updated on STN: 19 Apr 1999
CONCEPT CODE: Nutrition - General studies, nutritional status and methods 13202
Urinary system - General and methods 15501
Bones, joints, fasciae, connective and adipose tissue - General and methods 18001
Immunology - General and methods 34502
General biology - Symposia, transactions and proceedings 00520

INDEX TERMS: Major Concepts
Immune System (Chemical Coordination and Homeostasis); Nutrition

INDEX TERMS: Diseases
proteinuria: urologic disease
Proteinuria (MeSH)

INDEX TERMS: Diseases

systemic lupus erythematosus
: connective tissue disease, immune system disease
Lupus Erythematosus, Systemic (MeSH)

INDEX TERMS: Chemicals & Biochemicals
conjugated linoleic acid:
dietary

INDEX TERMS: Miscellaneous Descriptors
mortality; Meeting Abstract

ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
NZB/W F1 mouse: animal model
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: **1839-11-8Q (conjugated linoleic acid)**
121250-47-3Q (**conjugated linoleic acid**)
60-33-3 (LINOLEIC ACID)

TEXT SEARCH #1 (narrow)

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=> file hcaplus
FILE 'HCAPLUS' ENTERED AT 12:26:13 ON 26 JAN 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)
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FILE COVERS 1907 - 26 Jan 2006  VOL 144 ISS 5
FILE LAST UPDATED: 25 Jan 2006  (20060125/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.
'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que nos L26

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L8              STR
L9               29 SEA FILE=REGISTRY FAM FUL L8
L15            1344 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7
L16             705 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L19            7697 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIRHEUMATIC?/OBI
L20           19410 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ARTHRITIS/OBI (L) RHEUMATOID?/
                    OBI
L21             439 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ARTHUS/OBI
L22            5883 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLOMERULONEPHRIT?/OBI
L23             213 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SERUM SICKNESS?/OBI
L24           10829 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LUPUS ERYTHEMATOSUS+NT/CT
L26               6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L15 OR L16) AND (L19 OR L20
                    OR L21 OR L22 OR L23 OR L24)


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L8              STR
L9               29 SEA FILE=REGISTRY FAM FUL L8
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L16             705 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L32              17 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (HYPERSENSITIV?/OBI (3A)
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L8              STR
L9           29 SEA FILE=REGISTRY FAM FUL L8
L15        1344 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7
L16         705 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L35          41 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (HYPERSENSITIV? (3A) (TYPE
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=> d que nos L38

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L9           29 SEA FILE=REGISTRY FAM FUL L8
L10             STR
L11        1622 SEA FILE=REGISTRY FAM FUL L10
L12             STR
L13          73 SEA FILE=REGISTRY FAM FUL L12
L15        1344 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7
L16         705 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
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L24       10829 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LUPUS ERYTHEMATOSUS+NT/CT
L26           6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L15 OR L16) AND (L19 OR L20
                OR L21 OR L22 OR L23 OR L24)
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L30         102 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13 (L) (THU OR PAC OR BAC OR
                PKT OR DMA)/RL
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L38           5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26 AND L31


=> d que nos L39

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L9           29 SEA FILE=REGISTRY FAM FUL L8
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L12             STR
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L15        1344 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7
L16         705 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L17       38331 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11
L18        3693 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13
L19        7697 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIRHEUMATIC?/OBI
L20       19410 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ARTHRITIS/OBI (L) RHEUMATOID?/
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                OBI
L21           439 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ARTHUS/OBI
L22          5883 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLOMERULONEPHRIT?/OBI
L23           213 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SERUM SICKNESS?/OBI
L24         10829 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LUPUS ERYTHEMATOSUS+NT/CT
L25            72 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L15 OR L16 OR L17 OR L18)
                  AND (L19 OR L20 OR L21 OR L22 OR L23 OR L24)
L26             6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L15 OR L16) AND (L19 OR L20
                  OR L21 OR L22 OR L23 OR L24)
L39             6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26 AND L25

=> s (L26 or L33 or L36 or L38 or L39) not L165

L170            5 (L26 OR L33 OR L36 OR L38 OR L39) NOT L165

=> file medline

FILE 'MEDLINE' ENTERED AT 12:26:19 ON 26 JAN 2006

 FILE LAST UPDATED: 25 JAN 2006 (20060125/UP). FILE COVERS 1950 TO DATE.

 On December 11, 2005, the 2006 MeSH terms were loaded.

 The MEDLINE reload for 2006 will soon be available. For details
 on the 2005 reload, enter HELP RLOAD at an arrow promt (=>).
 See also:

    http://www.nlm.nih.gov/mesh/
    http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
    http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
    http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

 OLDMEDLINE is covered back to 1950.

 MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
 MeSH 2006 vocabulary.

 This file contains CAS Registry Numbers for easy and accurate

=> d que nos L64

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L8                STR
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L41            66 SEA FILE=MEDLINE ABB=ON  PLU=ON  L7
L42               SEL  PLU=ON  L7 1- CHEM :     143 TERMS
L43          1454 SEA FILE=MEDLINE ABB=ON  PLU=ON  L42
L44             0 SEA FILE=MEDLINE ABB=ON  PLU=ON  L9
L45               SEL  PLU=ON  L9 1- CHEM :      57 TERMS
L46           187 SEA FILE=MEDLINE ABB=ON  PLU=ON  L45
L55          1454 SEA FILE=MEDLINE ABB=ON  PLU=ON  L41 OR L43
L56           187 SEA FILE=MEDLINE ABB=ON  PLU=ON  L44 OR L46
L58          7794 SEA FILE=MEDLINE ABB=ON  PLU=ON  IMMUNE COMPLEX DISEASES+NT/CT

L59         72531 SEA FILE=MEDLINE ABB=ON  PLU=ON  ARTHRITIS, RHEUMATOID+NT/CT
L60          5036 SEA FILE=MEDLINE ABB=ON  PLU=ON  ANTIRHEUMATIC AGENTS/CT
L62         29985 SEA FILE=MEDLINE ABB=ON  PLU=ON  GLOMERULONEPHRITIS+NT/CT
L63         32664 SEA FILE=MEDLINE ABB=ON  PLU=ON  LUPUS ERYTHEMATOSUS, SYSTEMIC+
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printed with author search

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                NT/CT
L64             6 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L55 OR L56) AND ((L58 OR L59
                  OR L60) OR (L62 OR L63))


=> d que nos L65

L48           431 SEA FILE=MEDLINE ABB=ON  PLU=ON  LINOLEIC ACIDS, CONJUGATED/CT

L58          7794 SEA FILE=MEDLINE ABB=ON  PLU=ON  IMMUNE COMPLEX DISEASES+NT/CT

L59         72531 SEA FILE=MEDLINE ABB=ON  PLU=ON  ARTHRITIS, RHEUMATOID+NT/CT
L60          5036 SEA FILE=MEDLINE ABB=ON  PLU=ON  ANTIRHEUMATIC AGENTS/CT
L62         29985 SEA FILE=MEDLINE ABB=ON  PLU=ON  GLOMERULONEPHRITIS+NT/CT
L63         32664 SEA FILE=MEDLINE ABB=ON  PLU=ON  LUPUS ERYTHEMATOSUS, SYSTEMIC+
                  NT/CT
L65             3 SEA FILE=MEDLINE ABB=ON  PLU=ON  L48 AND ((L58 OR L59 OR L60)
                  OR (L62 OR L63))


=> s L64-L65 not L166

L171            5 (L64 OR L65) NOT L166
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printed with author search

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=> file embase

FILE 'EMBASE' ENTERED AT 12:26:23 ON 26 JAN 2006
Copyright (c) 2006 Elsevier B.V. All rights reserved.

 FILE COVERS 1974 TO 19 Jan 2006 (20060119/ED)

 EMBASE has been reloaded. Enter HELP RLOAD for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d que nos L114

L3              1 SEA FILE=REGISTRY ABB=ON  PLU=ON  9,11-OCTADECADIENOIC ACID/CN

L4              1 SEA FILE=REGISTRY ABB=ON  PLU=ON  10,12-OCTADECADIENOIC
                  ACID/CN
L6                STR
L7             88 SEA FILE=REGISTRY FAM FUL L6
L8                STR
L9             29 SEA FILE=REGISTRY FAM FUL L8
L79             5 SEA FILE=EMBASE ABB=ON  PLU=ON  L7
L86               SEL  PLU=ON  L3 1- CHEM :       11 TERMS
L87           852 SEA FILE=EMBASE ABB=ON  PLU=ON  L86
L88             0 SEA FILE=EMBASE ABB=ON  PLU=ON  L9
L90               SEL  PLU=ON  L4 1- CHEM :        2 TERMS
L91            38 SEA FILE=EMBASE ABB=ON  PLU=ON  L90
L95           852 SEA FILE=EMBASE ABB=ON  PLU=ON  L79 OR L87
L96            38 SEA FILE=EMBASE ABB=ON  PLU=ON  L88 OR L91
L103         4233 SEA FILE=EMBASE ABB=ON  PLU=ON  IMMUNE COMPLEX DISEASE+NT/CT
L104           52 SEA FILE=EMBASE ABB=ON  PLU=ON  TYPE III HYPERSENSITIV?
L105           95 SEA FILE=EMBASE ABB=ON  PLU=ON  HYPERSENSITIV? (3A) (TYPE III
                  OR TYPE 3)
L107          991 SEA FILE=EMBASE ABB=ON  PLU=ON  ARTHUS
L108         1332 SEA FILE=EMBASE ABB=ON  PLU=ON  SERUM SICKNESS
```

```
L109       58197 SEA FILE=EMBASE ABB=ON  PLU=ON  RHEUMATOID ARTHRITIS+NT/CT
L110        4944 SEA FILE=EMBASE ABB=ON  PLU=ON  ANTIRHEUMATIC AGENT/CT
L112       18906 SEA FILE=EMBASE ABB=ON  PLU=ON  GLOMERULONEPHRITIS+NT/CT
L113       26386 SEA FILE=EMBASE ABB=ON  PLU=ON  SYSTEMIC LUPUS ERYTHEMATOSUS/CT

L114           4 SEA FILE=EMBASE ABB=ON  PLU=ON  (L95 OR L96) AND ((L103 OR
                 L104 OR L105) OR (L107 OR L108 OR L109 OR L110) OR (L112 OR
                 L113))

=> d que nos L127

L100          40 SEA FILE=EMBASE ABB=ON  PLU=ON  LINOLEIC ACID DERIVATIVE/CT
L103        4233 SEA FILE=EMBASE ABB=ON  PLU=ON  IMMUNE COMPLEX DISEASE+NT/CT
L104          52 SEA FILE=EMBASE ABB=ON  PLU=ON  TYPE III HYPERSENSITIV?
L105          95 SEA FILE=EMBASE ABB=ON  PLU=ON  HYPERSENSITIV? (3A) (TYPE III
                 OR TYPE 3)
L107         991 SEA FILE=EMBASE ABB=ON  PLU=ON  ARTHUS
L108        1332 SEA FILE=EMBASE ABB=ON  PLU=ON  SERUM SICKNESS
L109       58197 SEA FILE=EMBASE ABB=ON  PLU=ON  RHEUMATOID ARTHRITIS+NT/CT
L110        4944 SEA FILE=EMBASE ABB=ON  PLU=ON  ANTIRHEUMATIC AGENT/CT
L112       18906 SEA FILE=EMBASE ABB=ON  PLU=ON  GLOMERULONEPHRITIS+NT/CT
L113       26386 SEA FILE=EMBASE ABB=ON  PLU=ON  SYSTEMIC LUPUS ERYTHEMATOSUS/CT

L127           0 SEA FILE=EMBASE ABB=ON  PLU=ON  L100 AND ((L103 OR L104 OR
                 L105) OR (L107 OR L108 OR L109 OR L110) OR (L112 OR L113))

=> d que nos L121

L99            8 SEA FILE=EMBASE ABB=ON  PLU=ON  LINOLEIC ACID CONJUGATE/CT
L103        4233 SEA FILE=EMBASE ABB=ON  PLU=ON  IMMUNE COMPLEX DISEASE+NT/CT
L104          52 SEA FILE=EMBASE ABB=ON  PLU=ON  TYPE III HYPERSENSITIV?
L105          95 SEA FILE=EMBASE ABB=ON  PLU=ON  HYPERSENSITIV? (3A) (TYPE III
                 OR TYPE 3)
L107         991 SEA FILE=EMBASE ABB=ON  PLU=ON  ARTHUS
L108        1332 SEA FILE=EMBASE ABB=ON  PLU=ON  SERUM SICKNESS
L109       58197 SEA FILE=EMBASE ABB=ON  PLU=ON  RHEUMATOID ARTHRITIS+NT/CT
L110        4944 SEA FILE=EMBASE ABB=ON  PLU=ON  ANTIRHEUMATIC AGENT/CT
L112       18906 SEA FILE=EMBASE ABB=ON  PLU=ON  GLOMERULONEPHRITIS+NT/CT
L113       26386 SEA FILE=EMBASE ABB=ON  PLU=ON  SYSTEMIC LUPUS ERYTHEMATOSUS/CT

L121           0 SEA FILE=EMBASE ABB=ON  PLU=ON  L99 AND ((L103 OR L104 OR
                 L105) OR (L107 OR L108 OR L109 OR L110) OR (L112 OR L113))

=> s (L114 or L127 or L121) not L167

L172           3 (L114 OR L127 OR L121) NOT L167

=> file biosis

FILE 'BIOSIS' ENTERED AT 12:26:27 ON 26 JAN 2006
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 25 January 2006 (20060125/ED)
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printed with author search

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=> d que nos L159

L6              STR
L7           88 SEA FILE=REGISTRY FAM FUL L6
L8              STR
L9           29 SEA FILE=REGISTRY FAM FUL L8
L137       1159 SEA FILE=BIOSIS ABB=ON  PLU=ON  L7
L138            SEL  PLU=ON  L7 1- CHEM :     143 TERMS
L139       2260 SEA FILE=BIOSIS ABB=ON  PLU=ON  L138
L140         59 SEA FILE=BIOSIS ABB=ON  PLU=ON  L9
L141            SEL  PLU=ON  L9 1- CHEM :      57 TERMS
L142        220 SEA FILE=BIOSIS ABB=ON  PLU=ON  L141
L147       2260 SEA FILE=BIOSIS ABB=ON  PLU=ON  L137 OR L139
L148        220 SEA FILE=BIOSIS ABB=ON  PLU=ON  L140 OR L142
L150         78 SEA FILE=BIOSIS ABB=ON  PLU=ON  HYPERSENSITIV? (3A) (TYPE III
                OR TYPE 3)
L152      53773 SEA FILE=BIOSIS ABB=ON  PLU=ON  RHEUMATOID ARTHRITIS
L153       1059 SEA FILE=BIOSIS ABB=ON  PLU=ON  ARTHUS
L154        806 SEA FILE=BIOSIS ABB=ON  PLU=ON  SERUM SICKN?
L155       2279 SEA FILE=BIOSIS ABB=ON  PLU=ON  ANTIRHEUMAT?
L156       1051 SEA FILE=BIOSIS ABB=ON  PLU=ON  IMMUNE COMPLEX DIS?
L157      17925 SEA FILE=BIOSIS ABB=ON  PLU=ON  GLOMERULONEPHRIT?
L158      31618 SEA FILE=BIOSIS ABB=ON  PLU=ON  LUPUS ERYTHEMAT? (3A) SYSTEMIC

L159          9 SEA FILE=BIOSIS ABB=ON  PLU=ON  (L147 OR L148) AND (L150 OR
                (L152 OR L153 OR L154 OR L155 OR L156 OR L157 OR L158))


=> s L159 not L168

L173          6 L159 NOT L168
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pruned with author search

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=> => dup rem L170 L171 L172 L173
FILE 'HCAPLUS' ENTERED AT 12:27:44 ON 26 JAN 2006
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PROCESSING COMPLETED FOR L170
PROCESSING COMPLETED FOR L171
PROCESSING COMPLETED FOR L172
PROCESSING COMPLETED FOR L173
L174          13 DUP REM L170 L171 L172 L173 (6 DUPLICATES REMOVED)
                 ANSWERS '1-5' FROM FILE HCAPLUS
                 ANSWERS '6-9' FROM FILE MEDLINE
                 ANSWERS '10-11' FROM FILE EMBASE
                 ANSWERS '12-13' FROM FILE BIOSIS

=> d ibib abs hitind hitstr L174 1-5; d iall L174 6-13

L174 ANSWER 1 OF 13  HCAPLUS  COPYRIGHT 2006 ACS on STN DUPLICATE 4
```

ACCESSION NUMBER: 1990:511825 HCAPLUS
DOCUMENT NUMBER: 113:111825
TITLE: Measurement of conjugated diene lipids by derivative spectroscopy in heptane extracts of plasma
AUTHOR(S): Situnayake, R. D.; Crump, B. J.; Zezulka, A. V.; Davis, M.; McConkey, B.; Thurnham, D. I.
CORPORATE SOURCE: Dep. Med., Dudley Road Hosp., Birmingham, B18 7QH, UK
SOURCE: Annals of Clinical Biochemistry (1990), 27(3), 258-66
CODEN: ACBOBU; ISSN: 0004-5632
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A series of expts. are described which show that 2nd derivative spectroscopy can be used to quantify conjugated lipid dienes as markers of lipid peroxidn. in heptane exts. of plasma from patients with rheumatoid arthritis, osteoarthritis, and healthy controls. Results obtained by this method gave reasonable agreement with those derived from the measurement of simple absorbance in chloroform/methanol exts. Two min. were observed in the derivative spectrum of plasma lipid exts. These min. occurred at 233 and 241 nm and corresponded to absorbance maximum in the conventional UV spectrum. Using a combination of phospholipase hydrolysis, reversed phase HPLC and 2nd deriv spectroscopy, it was confirmed that these 2 min. can be attributed to a single fatty acid (9-cis-, 11-trans-linoleic acid) shown previously to account for >90% of diene conjugation in human plasma samples. When the biol. isomer 9-cis-, 11-trans-linoleic acid was separated by reversed-phase HPLC from the mixture of other plasma phospholipid-2-esterified fatty acids a change was observed in derivative spectroscopy min. from 233 and 241 nm to 228 and 237 nm. Min. at the latter 2 wavelengths were also seen with pure prepns. of the Paint Research Isomer (9-trans-, 11-trans-linoleic acid) which eluted later than biol. 9-cis, 11-trans-linoleic acid using reversed phase HPLC, suggesting that the absorption spectra of these pure cis-, trans and trans, trans dienes are similar but can be altered by the presence of other fatty acids in the extract

CC 9-5 (Biochemical Methods)

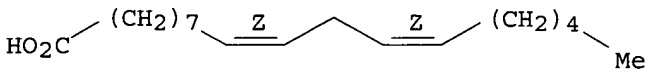
IT **Arthritis**
(**rheumatoid**, conjugated diene determination in blood heptane exts. in humans in)

IT 57-88-5, Cholest-5-en-3-ol (3β)-, analysis **60-33-3**, 9,12-Octadecadienoic acid (Z,Z)-, analysis 463-40-1 506-32-1 **544-71-8 2540-56-9**
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in blood plasma heptane exts. by spectroscopy)

IT **60-33-3**, 9,12-Octadecadienoic acid (Z,Z)-, analysis **544-71-8 2540-56-9**
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in blood plasma heptane exts. by spectroscopy)

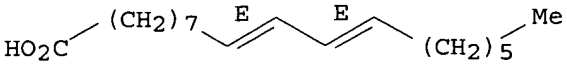
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



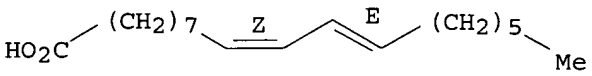
RN 544-71-8 HCAPLUS
CN 9,11-Octadecadienoic acid, (9E,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 2540-56-9 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L174 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1239024 HCAPLUS
DOCUMENT NUMBER: 144:601
TITLE: Nitrated lipids and methods of making and using thereof
INVENTOR(S): Freeman, Bruce A.; Schopfer, Francisco; O'Donnell, Valerie; Baker, Paul; Chen, Eugene; Branchaud, Bruce
PATENT ASSIGNEE(S): Uab Research Foundation, USA
SOURCE: PCT Int. Appl., 169 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005110396	A2	20051124	WO 2005-US14305	20050426

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-566005P P 20040428
AB Described herein are nitrated lipids and methods of making and using the nitrated lipids.
IC ICM A61K031-21
CC 1-7 (Pharmacology)
IT Addison's disease
Allergy
Allergy inhibitors
Alzheimer's disease
Anti-Alzheimer's agents
Anti-inflammatory agents
Antiarthritics
Antiasthmatics

Antidiabetic agents
Antihypertensives
Antirheumatic agents
Antitumor agents
Arthritis
Asthma
Atherosclerosis
Cardiovascular agents
Diabetes mellitus
Eczema
Erythema
Gene expression profiles
Graves' disease
Human
Hypertension
Inflammation
Macrophage
Monocyte
Multiple sclerosis
Myasthenia gravis
Neoplasm
Nervous system agents
Neutrophil
Platelet aggregation inhibitors
Preeclampsia
Pruritus
Psoriasis
Rheumatoid arthritis
Sickle cell anemia
Sjogren's syndrome
Transplant and Transplantation
Wart
(nitrated lipids for treatment of inflammation disease)

IT **Lupus erythematosus**
(systemic; nitrated lipids for treatment of inflammation disease)

IT **544-70-7** 5300-03-8 **7307-45-1** 10102-43-9, Nitric oxide, biological studies 17364-16-8 19420-56-5 22978-25-2, GW9662 74772-77-3, Ciglitazone 87893-55-8, 15-Deoxy-Δ12,14-PGJ2 122320-73-4, Rosiglitazone 129194-27-0
RL: PAC (Pharmacological activity); BIOL (Biological study)
(nitrated lipids for treatment of inflammation disease)

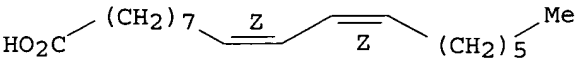
IT **60-33-3D**, Linoleic acid, nitrated reaction products
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(nitrated lipids for treatment of inflammation disease)

IT 57-88-5, Cholesterol, biological studies **60-33-3**, Linoleic acid, biological studies 112-80-1, Oleic acid, biological studies 463-40-1, Linolenic acid 506-32-1, Arachidonic acid 604-33-1, Cholesterol linoleate 25167-62-8, Docosahexaenoic acid 869858-77-5 869858-78-6
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(nitrated lipids for treatment of inflammation disease)

IT **544-70-7 7307-45-1**
RL: PAC (Pharmacological activity); BIOL (Biological study)
(nitrated lipids for treatment of inflammation disease)

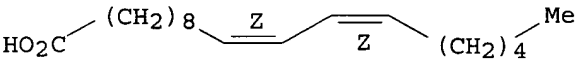
RN 544-70-7 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



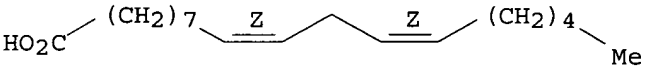
RN 7307-45-1 HCAPLUS
CN 10,12-Octadecadienoic acid, (10Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



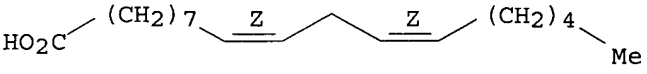
IT **60-33-3D**, Linoleic acid, nitrated reaction products
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(nitrated lipids for treatment of inflammation disease)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT **60-33-3**, Linoleic acid, biological studies
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(nitrated lipids for treatment of inflammation disease)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L174 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1218595 HCAPLUS
DOCUMENT NUMBER: 143:466211
TITLE: CLA-enriched milk fat and uses thereof
INVENTOR(S): Kanwar, Rupinder Kaur; Krissansen, Geoffrey Wayne; Black, Peter Nigel; Macgibbon, Alastair Kenneth Hugh
PATENT ASSIGNEE(S): N. Z.
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005107736	A1	20051117	WO 2005-NZ96	20050511

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: NZ 2004-532872 A 20040511

AB The present invention relates to use of 9-cis,11-trans isomer of conjugated linoleic acid (CLA) or a salt, ester or precursor thereof or CLA-enriched milk fat for treating or preventing conditions such as those associated with one or more of leukocyte infiltration, eosinophilia, IgE secretion, airway remodelling, bronchoconstriction and mucus hypersecretion. The invention also relates to a pharmaceutical composition comprising CLA-enriched milk fat. Thus, the CLA-enriched milk fat diet of mice suppressed the increase in OVA-specific IgE by 30 and 55%, and OVA-specific IgG1 by 45 and 48%, resp., compared to levels in the sera of mice fed the control diet, and the normal milk fat diet.

IC ICM A61K031-201
ICS A61P011-06; A61P037-08

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 17

IT Allergy
Asthma
Beverages
Cystic fibrosis
Eosinophilia
Feeding experiment
Food
Food additives
Hay fever
Infection
Rheumatoid arthritis
Sarcoidosis
Urticaria
(conjugated linoleic acid enriched milk fat compns. for treatment of inflammation and immune disorder)

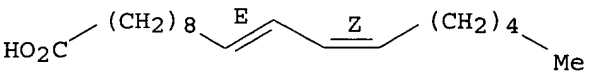
IT **2420-56-6**, 10-trans, 12-cis-Linoleic acid **2540-56-9**, 9-cis,11-trans-Linoleic acid **2540-56-9D**, 9-cis,11-trans-Linoleic acid, esters 277744-17-9 278181-54-7
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acid enriched milk fat compns. for treatment of inflammation and immune disorder)

IT **693-72-1**, Vaccenic acid
RL: ADV (Adverse effect, including toxicity); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(precursor; conjugated linoleic acid enriched milk fat compns. for treatment of inflammation and immune disorder)

IT **2420-56-6**, 10-trans, 12-cis-Linoleic acid **2540-56-9**, 9-cis,11-trans-Linoleic acid **2540-56-9D**, 9-cis,11-trans-Linoleic acid, esters
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugated linoleic acid enriched milk fat compns. for treatment of

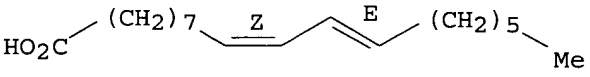
inflammation and immune disorder)
RN 2420-56-6 HCAPLUS
CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



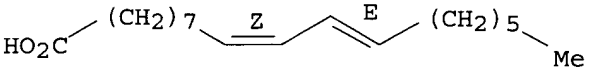
RN 2540-56-9 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



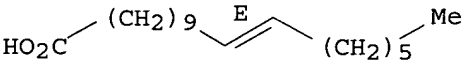
RN 2540-56-9 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT **693-72-1**, Vaccenic acid
RL: ADV (Adverse effect, including toxicity); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(precursor; conjugated linoleic acid enriched milk fat compns. for treatment of inflammation and immune disorder)
RN 693-72-1 HCAPLUS
CN 11-Octadecenoic acid, (11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



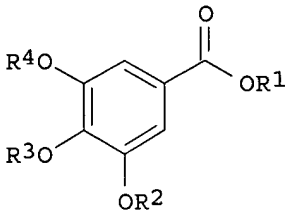
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L174 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1073991 HCAPLUS
DOCUMENT NUMBER: 143:367082
TITLE: Preparation of gallic acid conjugated linoleic acid fatty ester, method for their preparation, and composition containing them
INVENTOR(S): Byun, Myung-Woo; Jo, Cho-Run
PATENT ASSIGNEE(S): Korea Atomic Energy Research Institute, S. Korea
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
JP 2005272471	A2	20051006	JP 2005-88064		20050325
PRIORITY APPLN. INFO.:			KR 2004-20508	A	20040325
			KR 2005-15022	A	20050223

OTHER SOURCE(S): CASREACT 143:367082; MARPAT 143:367082
GI



I

AB The title gallic acid esters (I) [R1, R4 = H, conjugated linoleic acid, in particular 9-cis,11-trans-octadecadienoic acid, 9-trans,11-cis-octadecadienoic acid, 10-cis,12-trans-octadecadienoic acid, or 10-trans,12-cis-octadecadienoic acid, provided that a case where R1-R4 = H is excluded] are prepared by (1) dissolving gallic acid and conjugated linoleic acid in a 1:3 molar ratio in an organic solvent, adding base, and allowing the resulting mixture to be reacted, and (2) adding Et acetate to the resulting reaction mixture, allowing the mixture to undergo phase separation, recovering the upper layer, and concentrating it. An antioxidant composition, antibacterial and antifungicidal composition, antiinflammatory composition, skin-whitening composition containing gallic acid conjugated linoleic acid fatty esters I are also disclosed. The gallic acid esters I possess excellent electron-donating power, antioxidant activity with low peroxidn. value and low deterioration tendency, excellent antibacterial and fungicidal activity, antiinflammatory activity due to inhibitory activity against COX-1 and COX-2, and skin-whitening activity due to high tyrosinase-inhibitory activity. Thus, a 1:3 molar ratio of gallic acid and linoleic acid (80% purity) was dissolved in THF, treated with Et3N and 1,3-dicyclohexylcarbodiimide, stirred at room temperature for 24 h, washed twice with distilled water, and treated with Et acetate, followed by phase separation, recovering the upper phase, and concentration, to give gallic acid linoleic acid ester (II). II in vitro inhibited the growth of fungi (e.g. Aspergillus flavus), lactic bacteria (leuconostoc mesenteroides), and Listeria ivanova (bacterium).

IC ICM C07C067-08
ICS A61K007-00; A61K007-48; A61K031-235; A61P019-02; A61P029-00; C07C069-92; C09K015-08; A23L001-30; A23L003-3508

CC 25-18 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 1, 17, 62

IT Anti-inflammatory agents
Antiarthritics

Antibacterial agents
Antioxidants
Antirheumatic agents
Esterification
Food additives
Fungicides
Health food
Inflammation
Mycosis
Osteoarthritis
Rheumatoid arthritis
(preparation of gallic acid conjugated linoleic acid fatty ester and pharmaceutical or skin-whitening cosmetic composition containing them)

IT **866409-75-8P**
RL: COS (Cosmetic use); FFD (Food or feed use); **PAC (Pharmacological activity)**; SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of gallic acid conjugated linoleic acid fatty ester and pharmaceutical or skin-whitening cosmetic composition containing them)

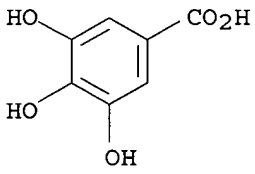
IT **60-33-3**, Linoleic acid, reactions 149-91-7, Gallic acid, reactions **872-23-1**, 9-trans,11-cis-Octadecadienoic acid **2420-44-2**, 10-cis,12-trans-Octadecadienoic acid **2420-56-6**, 10-trans,12-cis-Octadecadienoic acid **2540-56-9**, 9-cis,11-trans-Octadecadienoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of gallic acid conjugated linoleic acid fatty ester and pharmaceutical or skin-whitening cosmetic composition containing them)

IT **866409-75-8P**
RL: COS (Cosmetic use); FFD (Food or feed use); **PAC (Pharmacological activity)**; SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of gallic acid conjugated linoleic acid fatty ester and pharmaceutical or skin-whitening cosmetic composition containing them)

RN 866409-75-8 HCAPLUS
CN Benzoic acid, 3,4,5-trihydroxy-, (9Z,12Z)-9,12-octadecadienoate (9CI) (CA INDEX NAME)

CM 1

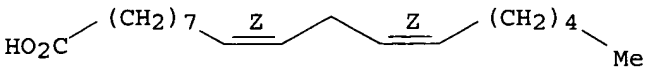
CRN 149-91-7
CMF C7 H6 O5



CM 2

CRN 60-33-3
CMF C18 H32 O2

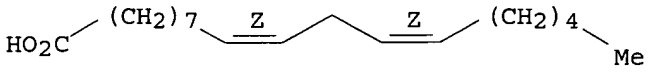
Double bond geometry as shown.



IT **60-33-3**, Linoleic acid, reactions **872-23-1**,
9-trans,11-cis-Octadecadienoic acid **2420-44-2**,
10-cis,12-trans-Octadecadienoic acid **2420-56-6**,
10-trans,12-cis-Octadecadienoic acid **2540-56-9**,
9-cis,11-trans-Octadecadienoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of gallic acid conjugated linoleic acid fatty ester and pharmaceutical or skin-whitening cosmetic composition containing them)

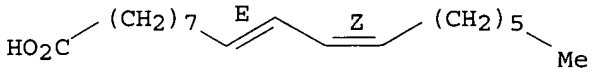
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



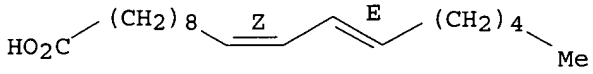
RN 872-23-1 HCAPLUS
CN 9,11-Octadecadienoic acid, (9E,11Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



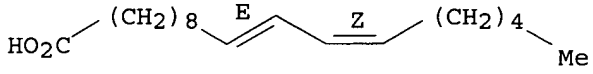
RN 2420-44-2 HCAPLUS
CN 10,12-Octadecadienoic acid, (10Z,12E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



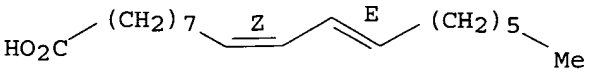
RN 2420-56-6 HCAPLUS
CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 2540-56-9 HCAPLUS
CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L174 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:466707 HCAPLUS
DOCUMENT NUMBER: 137:37683
TITLE: Method of potentiating the action of 2-methoxyoestradiol, statins and c-peptide of proinsulin
INVENTOR(S): Das, Undurti Narasimha
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002077317	A1	20020620	US 2000-737671	20001215
PRIORITY APPLN. INFO.:			US 2000-737671	20001215

AB Disclosed is a method of stabilizing and potentiating the actions of 2-methoxyoestradiol, statins, H2 blockers, and C-peptide of proinsulin which have modifying influence on angiogenesis and inhibiting the growth of tumor cells, peptic ulcer disease, diabetes mellitus and its complications, and Alzheimer's disease as applicable by using in coupling conjugation certain polyunsatd. fatty acids (PUFAs) chosen from linoleic acid, γ-linolenic acid, dihomo-γ-linolenic acid, arachidonic acid, α-linolenic acid, eicosapentaenoic acid, docosahexaenoic acid, cis-parinaric acid or conjugated linoleic acid in predetd. quantities. Uncontrolled angiogenic activity and tumor growth can be inhibited by the selective use of a mixture of PUFAs with anti-angiogenic substances used selectively, and optionally in conjunction with predetd. anti-cancer drugs. A preferred method of administration of the mixture to treat a tumor is intra-arterial administration into an artery which provides the main blood supply for the tumor. The method will also be useful in the treatment of peptic ulcer disease, diabetes mellitus and its complications and Alzheimer's disease.

IC ICM A61K038-28
ICS A61K039-395; A61K031-56; A61K031-40; A61K031-35
INCL 514171000
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
IT Angiogenesis inhibitors
Antacids
Antidiabetic agents
Antirheumatic agents
Antitumor agents
Antiulcer agents
Human
Radiotherapy
(polyunsatd. fatty acids for potentiating actions of anigogenesis inhibitors and antiulcer agents and antidiabetics and mental disease drugs)
IT **Lupus erythematosus**

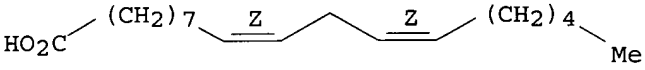
(systemic, treatment of; polyunsatd. fatty acids for potentiating actions of anigogenesis inhibitors and antiulcer agents and antidiabetics and mental disease drugs)

IT **60-33-3**, Linoleic acid, biological studies 463-40-1, α-Linolenic acid 506-26-3, γ-Linolenic acid 506-32-1, Arachidonic acid 593-38-4, cis-Parinaric acid 1783-84-2, Dihomo-γ-linolenic acid **1839-11-8**, Conjugated linoleic acid 6217-54-5, Docosahexaenoic acid 10417-94-4, Eicosapentaenoic acid
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(polyunsatd. fatty acids for potentiating actions of anigogenesis inhibitors and antiulcer agents and antidiabetics and mental disease drugs)

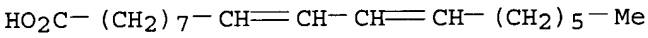
IT **60-33-3**, Linoleic acid, biological studies **1839-11-8**, Conjugated linoleic acid
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(polyunsatd. fatty acids for potentiating actions of anigogenesis inhibitors and antiulcer agents and antidiabetics and mental disease drugs)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 1839-11-8 HCAPLUS
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



L174 ANSWER 6 OF 13 MEDLINE on STN DUPLICATE 1

ACCESSION NUMBER:	1999132735 MEDLINE
DOCUMENT NUMBER:	PubMed ID: 9933972
TITLE:	Increased levels of lipid oxidation products in rheumatically destructed bones of patients suffering from rheumatoid arthritis.
AUTHOR:	Jira W; Spiteller G; Richter A
CORPORATE SOURCE:	Lehrstuhl fur Organische Chemie I, Universitat Bayreuth, Germany.
SOURCE:	Zeitschrift fur Naturforschung. C, Journal of biosciences, (1998 Nov-Dec) 53 (11-12) 1061-71. Journal code: 8912155. ISSN: 0341-0382.
PUB. COUNTRY:	GERMANY: Germany, Federal Republic of
DOCUMENT TYPE:	Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:	English
FILE SEGMENT:	Priority Journals
ENTRY MONTH:	199902
ENTRY DATE:	Entered STN: 19990316 Last Updated on STN: 19990316 Entered Medline: 19990226

ABSTRACT:

The new indicator for lipid peroxidation (LPO) processes--9-hydroxy-**10,12-octadecadienoic acid** (9-HODE)--was used to investigate, whether LPO processes are increased in destructed bone material of patients suffering from rheumatoid arthritis (RA) in comparison to surrounded non destructed bone material. The HODE content in destructed bones exceeded that of non destructed ones of the same patient for a factor of about 3. In addition similar increases in leukotoxines and epoxy oleic acid in the destructed bone material were observed, indicating an increase of LPO processes in affected bone parts of patients.

CONTROLLED TERM: ***Arthritis, Rheumatoid: ME, metabolism**
*Bacterial Proteins
*Bone and Bones: ME, metabolism
Bone and Bones: PA, pathology
Exotoxins: ME, metabolism
Fatty Acids: ME, metabolism
Hemolysins: ME, metabolism
Humans
*Lipid Peroxidation
Reference Standards
Research Support, Non-U.S. Gov't
Spectrum Analysis, Mass: MT, methods

CHEMICAL NAME: 0 (Bacterial Proteins); 0 (Exotoxins); 0 (Fatty Acids); 0 (Hemolysins); 0 (lktA protein, bacteria)

L174 ANSWER 7 OF 13 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 97362884 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9219348
TITLE: Increased levels of lipid oxidation products in low density lipoproteins of patients suffering from rheumatoid arthritis.
AUTHOR: Jira W; Spiteller G; Richter A
CORPORATE SOURCE: Lehrstuhl fur Organische Chemie I, Universitat Bayreuth, NW I, Germany.
SOURCE: Chemistry and physics of lipids, (1997 May 30) 87 (1) 81-9. Journal code: 0067206. ISSN: 0009-3084.
PUB. COUNTRY: Ireland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199708
ENTRY DATE: Entered STN: 19970813
Last Updated on STN: 19980206
Entered Medline: 19970806

ABSTRACT:
9-Hydroxy-**10,12-octadecadienoic acid** (9-HODE) and 13-hydroxy-**9,11-octadecadienoic** ***acid*** (13-HODE) are accumulated in the low density lipoproteins of patients suffering from rheumatoid arthritis for a factor of 20-50 compared to healthy individuals of the same age. Both acids, derived by lipid peroxidation of linoleic acid, induce the release of interleukin 1 beta. The latter induces bone degression. The genesis of 9- and 13-HODE seems therefore to be an important factor in the development and progression of rheuma; in addition 9-HODE was reported to be a stimulus of inflammation, comparable to leukotrienes.

CONTROLLED TERM: Check Tags: Female; Male
Adult
Aged
Aldehydes: BL, blood
***Arthritis, Rheumatoid: BL, blood**
Chromatography, Gas

Humans
Linoleic Acid
Linoleic Acids: BL, blood
***Linoleic Acids, Conjugated**
*Lipid Peroxidation
Lipid Peroxides: BL, blood
*Lipoproteins, LDL: BL, blood
Lipoproteins, LDL: CH, chemistry
Middle Aged
Spectrum Analysis, Mass

CAS REGISTRY NO.: **15514-85-9 (9-hydroxy-10,12-octadecadienoic acid)** ; 17046-02-5 (2-hydroxyheptanal); 2197-37-7 (Linoleic Acid); **5204-88-6 (13-hydroxy-9,11-octadecadienoic acid)**

CHEMICAL NAME: 0 (Aldehydes); 0 (Linoleic Acids); 0 (Linoleic Acids, Conjugated); 0 (Lipid Peroxides); 0 (Lipoproteins, LDL)

L174 ANSWER 8 OF 13 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 97252343 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9097912
TITLE: Calorie restriction decreases platelet-derived growth factor (PDGF)-A and thrombin receptor mRNA expression in autoimmune murine lupus nephritis.
AUTHOR: Troyer D A; Chandrasekar B; Barnes J L; Fernandes G
CORPORATE SOURCE: Pathology, The University of Texas Health Science Centre, San Antonio 78284-7874, USA.
CONTRACT NUMBER: RO1-AG 10531 (NIA)
SOURCE: Clinical and experimental immunology, (1997 Apr) 108 (1) 58-62.
Journal code: 0057202. ISSN: 0009-9104.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199705
ENTRY DATE: Entered STN: 19970523
Last Updated on STN: 20000303
Entered Medline: 19970513

ABSTRACT:
Calorie restriction (CR) and supplementation with fish oil (FO) are known to increase the life span and diminish histological evidence of glomerulonephritis in lupus prone (NZB x NZW)F1 (B/W) mice. Cellular proliferation is an important pathological element in the development of lupus nephritis, and we have examined the expression of thrombin receptor (TR) and the mitogenic agents PDGF-A and -B. Weanling B/W mice were fed either ad libitum or a calorie restricted (CR; 40% less calories than ad libitum) diet supplemented with either 5% (w/w) corn oil (CO) or FO. CR animals consumed 2.7-3.0 g of wet food per day versus 4.5-5.0 g for the ad libitum animals. Renal RNA was extracted from young (3.5-4.0 months of age) and old (8-10 months of age) mice. Densitometric analysis (reference gene GAPDH) of blots from Northern (PDGF-A and -B) and ribonuclease protection assays (TR) produced the following data: (i) in young mice no signal was detected for PDGF-A, -B and TR in all four groups, while the signals were readily detectable in old mice; (ii) in old mice low and similar levels of PDGF-B were detected, and neither CR nor the source of lipid altered its expression; (iii) CR significantly inhibited PDGF-A and TR expression in both CO (ad libitum versus CR; PDGF-A, 3.25-fold, $P < 0.025$; ***TR*** , **3.**7-fold, $P < 0.01$) and FO (ad libitum versus CR; PDGF-A, 4.56-fold, $P < 0.01$; **TR**, **3.**6-fold, $P < 0.025$) groups; (iv) although FO (versus CO) produced a trend towards decreased expression, results were not statistically significant. We conclude that suppression of renal

disease in lupus-prone mice by CR is accompanied by decreased expression of PDGF-A and the thrombin receptor.

CONTROLLED TERM: Check Tags: Female
Animals
Autoimmunity: IM, immunology
Disease Models, Animal
*Energy Intake
Gene Expression
***Lupus Nephritis: IM, immunology**
Lupus Nephritis: ME, metabolism
Mice
Platelet-Derived Growth Factor: GE, genetics
*Platelet-Derived Growth Factor: ME, metabolism
Proto-Oncogene Proteins: GE, genetics
Proto-Oncogene Proteins c-sis
RNA, Messenger
Receptors, Thrombin: GE, genetics
*Receptors, Thrombin: ME, metabolism
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.

CHEMICAL NAME: 0 (Platelet-Derived Growth Factor); 0 (Proto-Oncogene Proteins); 0 (Proto-Oncogene Proteins c-sis); 0 (RNA, Messenger); 0 (Receptors, Thrombin); 0 (platelet-derived growth factor A)

L174 ANSWER 9 OF 13 MEDLINE on STN
ACCESSION NUMBER: 2000132023 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10667371
TITLE: Dramatic increase of linoleic acid peroxidation products by aging, atherosclerosis, and rheumatoid arthritis.
AUTHOR: Jira W; Spiteller G
CORPORATE SOURCE: Department of Organic Chemistry I, University of Bayreuth.
SOURCE: Advances in experimental medicine and biology, (1999) 469 479-83.
Journal code: 0121103. ISSN: 0065-2598.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200003
ENTRY DATE: Entered STN: 20000330
Last Updated on STN: 20000330
Entered Medline: 20000323

CONTROLLED TERM: Adult
Aged
Aged, 80 and over
*Aging: BL, blood
*Arteriosclerosis: BL, blood
***Arthritis, Rheumatoid: BL, blood**
Humans
*Linoleic Acid: BL, blood
Linoleic Acids: BL, blood
***Linoleic Acids, Conjugated**
Lipid Peroxidation
Lipoproteins, LDL: BL, blood
Middle Aged

CAS REGISTRY NO.: **15514-85-9 (9-hydroxy-10,12-octadecadienoic acid)** ; 2197-37-7 (Linoleic Acid); **5204-88-6 (13-hydroxy-9,11-octadecadienoic acid)**

CHEMICAL NAME: 0 (Linoleic Acids); 0 (Linoleic Acids, Conjugated); 0

(Lipoproteins, LDL)

L174 ANSWER 10 OF 13 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2004521843 EMBASE
TITLE: Fatty acids: Which ones do we need?.
AUTHOR: Mason P.
CORPORATE SOURCE: United Kingdom
SOURCE: Pharmaceutical Journal, (20 Nov 2004) Vol. 273, No. 7326, pp. 750-752.
Refs: 17
ISSN: 0031-6873 CODEN: PHJOAV
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Note
FILE SEGMENT: 003 Endocrinology
008 Neurology and Neurosurgery
017 Public Health, Social Medicine and Epidemiology
018 Cardiovascular Diseases and Cardiovascular Surgery
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20041228
Last Updated on STN: 20041228

ABSTRACT: It is important to ensure that any fat consumed is of a beneficial type. More emphasis should be placed on MUFAs and n3 PUFAs to replace both SFAs and n6 PUFAs. This will help to ensure an appropriate balance of n3 to n6 PUFAs and a reduced intake of SFAs. This could help to reduce the risk of CVD and other chronic conditions with an inflammatory component. Irrespective of the type of fatty acids contained, all fats provide 9kcal (37kJ) per gram, making fat the most concentrated source of energy in the diet and a potentially significant risk factor for obesity so, although some fatty acids are essential for health, total fat intake should still be limited. Topping up on EFAs is best done through dietary measures. Usually, it is the n3 EFAs that are needed. Hence the best advice is to eat n3-rich oily fish and seeds or seed oils (see Panel 1, p749). For people who do not like eating oily fish and who are concerned about the risk of CVD, a supplement providing 1g of n3 fatty acids (from fish oils) can be suggested. If supplements are used, because of their instability, it is best to buy them in small quantities and to keep them refrigerated.

CONTROLLED TERM: Medical Descriptors:
*fat intake
*cardiovascular disease: DT, drug therapy
*cardiovascular disease: PC, prevention
food composition
risk reduction
cardiovascular risk
energy resource
risk factor
obesity
low fat diet
nutritional requirement
fish
diet supplementation
drug stability
drug storage
freezing
fatty acid analysis
chemical structure
cholesterol metabolism

atherosclerosis: DT, drug therapy
atherosclerosis: PC, prevention
anticoagulation
antiinflammatory activity
heart ventricle arrhythmia: DT, drug therapy
heart ventricle arrhythmia: PC, prevention
hypertension: DT, drug therapy
rheumatoid arthritis: DT, drug therapy
ulcerative colitis: DT, drug therapy
Crohn disease: DT, drug therapy
mood disorder: DT, drug therapy
depression: DT, drug therapy
schizophrenia: DT, drug therapy
dementia: DT, drug therapy
stroke: DT, drug therapy
stroke: PC, prevention
heart infarction: DT, drug therapy
heart infarction: PC, prevention
diabetes mellitus: DT, drug therapy
alcoholism: DT, drug therapy
nutritional deficiency: DT, drug therapy
malignant neoplastic disease: DT, drug therapy
mental function
human
note
Drug Descriptors:
*fatty acid: DT, drug therapy
*fatty acid: PD, pharmacology
monounsaturated fatty acid
omega 3 fatty acid: DT, drug therapy
omega 3 fatty acid: PD, pharmacology
saturated fatty acid
omega 6 fatty acid
essential fatty acid
vegetable oil
fish oil: DT, drug therapy
palmitic acid
stearic acid
decanoic acid
lauric acid
myristic acid
arachidic acid
behenic acid
oleic acid
erucic acid
linoleic acid
linolenic acid
gamma linolenic acid: DT, drug therapy
arachidonic acid
icosapentaenoic acid: DT, drug therapy
docosahexaenoic acid: DT, drug therapy
low density lipoprotein cholesterol: EC, endogenous compound
high density lipoprotein cholesterol: EC, endogenous compound
triacylglycerol: EC, endogenous compound
linseed oil: DT, drug therapy
conjugated linoleic acid: DT, drug therapy

CAS REGISTRY NO.: (essential fatty acid) 11006-87-4; (fish oil) 8016-13-5; (palmitic acid) 57-10-3; (stearic acid) 57-11-4, 646-29-7;

(decanoic acid) 334-48-5, 3398-75-2; (lauric acid) 115-05-9, 143-07-7; (myristic acid) 1715-79-3, 544-63-8; (arachidic acid) 506-30-9; (behenic acid) 112-85-6; (oleic acid) 112-80-1, 115-06-0; (erucic acid) 112-86-7; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (linolenic acid) 1955-33-5, 463-40-1; (gamma linolenic acid) 1686-12-0; (arachidonic acid) 506-32-1, 6610-25-9, 7771-44-0; (icosapentaenoic acid) 25378-27-2, 32839-30-8; (docosahexaenoic acid) 25167-62-8, 32839-18-2; (linseed oil) 8001-26-1

L174 ANSWER 11 OF 13 EMBASE

ACCESSION NUMBER: 2005218157 EMBASE
TITLE: Lipids and the immune response: From molecular mechanisms to clinical applications.
AUTHOR: Yaqoob P.
CORPORATE SOURCE: Dr. P. Yaqoob, Hugh Sinclair Unit of Human Nutrition, School of Food Biosciences, University of Reading, PO Box 226, Reading RG6 6AP, United Kingdom. p.yaqoob@reading.ac.uk
SOURCE: Current Opinion in Clinical Nutrition and Metabolic Care, (2003) Vol. 6, No. 2, pp. 133-150.
Refs: 136
ISSN: 1363-1950 CODEN: COCMF3
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 022 Human Genetics
026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20050609
Last Updated on STN: 20050609
ABSTRACT: Purpose of review: This review critically evaluates recent studies investigating the effects of fatty acids on immune and inflammatory responses in both healthy individuals and in patients with inflammatory diseases, with some reference to animal studies where relevant. It examines recent findings describing the cellular and molecular basis for the modulation of immune function by fatty acids. The newly emerging area of diet-genotype interactions will also be discussed, with specific reference to the anti-inflammatory effects of fish oil. Recent findings: Fatty acids are participants in many intracellular signalling pathways. They act as ligands for nuclear receptors regulating a host of cell responses, they influence the stability of lipid rafts, and modulate eicosanoid metabolism in cells of the immune system. Recent findings suggest that some or all of these mechanisms may be involved in the modulation of immune function by fatty acids. Summary: Human studies investigating the relationship between dietary fatty acids and some aspects of the immune response have been disappointingly inconsistent. This review presents the argument that most studies have not been adequately powered to take into account the influence of variation (genotypic or otherwise) on parameters of immune function. There is well-documented evidence that fatty acids modulate T lymphocyte activation, and recent findings describe a range of potential cellular and molecular mechanisms. However, there are still many questions remaining, particularly with respect to the roles of nuclear receptors, for which fatty acids act as ligands, and the modulation of eicosanoid synthesis, for which fatty acids act as precursors. .COPYRGT. 2003 Lippincott Williams & Wilkins.

CONTROLLED TERM:

Medical Descriptors:
*immune response
inflammation
diet
genotype
antiinflammatory activity
signal transduction
host cell
lipid raft
icosanoid metabolism
T lymphocyte activation
fatty acid synthesis
inflammatory disease: TH, therapy
diet supplementation
rheumatoid arthritis: TH, therapy
osteoarthritis: TH, therapy
enteritis: TH, therapy
adult respiratory distress syndrome: DT, drug therapy
atopic dermatitis: DT, drug therapy
psoriasis: DT, drug therapy
immunoglobulin A nephropathy: TH, therapy
graft rejection: CO, complication
graft rejection: PC, prevention
graft rejection: TH, therapy
parenteral nutrition
enteric feeding
human
nonhuman
clinical trial
meta analysis
systematic review
review
Drug Descriptors:
*lipid
fatty acid
fish oil: CM, drug comparison
fish oil: DT, drug therapy
fish oil: IV, intravenous drug administration
cell nucleus receptor
ligand
lipid emulsion: CT, clinical trial
lipid emulsion: DO, drug dose
lipid emulsion: DT, drug therapy
lipid emulsion: IV, intravenous drug administration
lipid emulsion: PA, parenteral drug administration
omega 3 fatty acid: CT, clinical trial
omega 3 fatty acid: AD, drug administration
omega 3 fatty acid: DO, drug dose
omega 3 fatty acid: DT, drug therapy
omega 3 fatty acid: IV, intravenous drug administration
omega 3 fatty acid: PO, oral drug administration
omega 3 fatty acid: TP, topical drug administration
polyunsaturated fatty acid: CT, clinical trial
polyunsaturated fatty acid: DO, drug dose
polyunsaturated fatty acid: DT, drug therapy
polyunsaturated fatty acid: IV, intravenous drug administration
arachidonic acid
gamma linolenic acid
linolenic acid

docosahexaenoic acid
icosapentaenoic acid
lung surfactant: DT, drug therapy
phosphatidylcholine: DT, drug therapy
soybean oil: CM, drug comparison
soybean oil: DT, drug therapy
soybean oil: IV, intravenous drug administration
linoleic acid: DT, drug therapy
palmitic acid: DT, drug therapy
primrose oil: DT, drug therapy
fatty acid ester: DT, drug therapy
clinoleic
intralipid
arginine: CT, clinical trial
arginine: AD, drug administration
nucleotide: CT, clinical trial
nucleotide: AD, drug administration
conjugated linoleic acid
ivelip

CAS REGISTRY NO.: (lipid) 66455-18-3; (fish oil) 8016-13-5; (arachidonic acid) 506-32-1, 6610-25-9, 7771-44-0; (gamma linolenic acid) 1686-12-0; (linolenic acid) 1955-33-5, 463-40-1; (docosahexaenoic acid) 25167-62-8, 32839-18-2; (icosapentaenoic acid) 25378-27-2, 32839-30-8; (lung surfactant) 99732-49-7; (phosphatidylcholine) 55128-59-1, 8002-43-5; (soybean oil) 8001-22-7; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (palmitic acid) 57-10-3; (primrose oil) 65546-85-2; (clinoleic) 187413-58-7; (intralipid) 68890-65-3; (arginine) 1119-34-2, 15595-35-4, 7004-12-8, 74-79-3

CHEMICAL NAME: Ivelip

L174 ANSWER 12 OF 13 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:412973 BIOSIS
DOCUMENT NUMBER: PREV200510194031
TITLE: Regulatory T cells: Development, function and role in autoimmunity.
AUTHOR(S): Lan, Ruth Y.; Ansari, Aftab A.; Lian, Zhe-Xiong; Gershwin, M. Eric [Reprint Author]
CORPORATE SOURCE: Univ Calif Davis, Div Rheumatol Allergy and Clin Immunol, TB 192,1 Shields Ave, Davis, CA 95616 USA
megershwin@ucdavis.edu
SOURCE: Autoimmunity Reviews, (JUL 2005) Vol. 4, No. 6, pp. 351-363.
ISSN: 1568-9972.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Oct 2005
Last Updated on STN: 12 Oct 2005

ABSTRACT:The crucial role of regulatory cells in self-tolerance and autoimmunity has been clearly established in numerous types of regulatory cells, the majority of which are CD4(+)T cells. Much focus has been placed on thymically derived CD4(+)CD25(+) regulatory T cells, given that the depletion of this subset in murine models results in the spontaneous development of autoimmune diseases. These naturally occurring regulatory T cells are found to be functionally mature in the thymus, and exert suppression in a contact-dependent manner. Another important category of immunosuppressive cells consists of conditionally induced regulatory T cells such as Tr1, Th3,

and various other CD4(+) lymphocytes. Understanding the development and regulatory functions of immunoregulatory cells may elucidate the etiology for loss of self-tolerance. This review will summarize the characteristics, developmental pathways, and functions of regulatory T cells, as well as their role in human autoimmune diseases including multiple sclerosis, ***rheumatoid*** **arthritis**, Myasthenia Gravis, Kawasaki disease, autoimmune polyglandular syndrome type II, type I diabetes, autoimmune lymphoproliferative syndrome, and **systemic lupus** ***erythematosus.***

CONCEPT CODE:
Cytology - Animal 02506
Cytology - Human 02508
Metabolism - Metabolic disorders 13020
Cardiovascular system - Blood vessel pathology 14508
Blood - Blood and lymph studies 15002
Blood - Blood cell studies 15004
Blood - Blood, lymphatic and reticuloendothelial pathologies 15006
Endocrine - Pancreas 17008
Muscle - Pathology 17506
Bones, joints, fasciae, connective and adipose tissue - Pathology 18006
Integumentary system - Pathology 18506
Nervous system - Pathology 20506
Development and Embryology - General and descriptive 25502
Immunology - General and methods 34502
Immunology - Immunopathology, tissue immunology 34508
Allergy 35500

INDEX TERMS: Major Concepts
Development; Hematology (Human Medicine, Medical Sciences); Clinical Immunology (Human Medicine, Medical Sciences)

INDEX TERMS: Parts, Structures, & Systems of Organisms
CD4-positive T cell: immune system, blood and lymphatics; regulatory T cell: immune system; CD4-positive CD25-positive T cell: immune system; Tr-1 T cell: immune system; **Tr-3** T cell: immune system

INDEX TERMS: Diseases
rheumatoid arthritis: immune system disease, joint disease, connective tissue disease
Arthritis, Rheumatoid (MeSH)

INDEX TERMS: Diseases
multiple sclerosis: nervous system disease, immune system disease
Multiple Sclerosis (MeSH)

INDEX TERMS: Diseases
systemic lupus erythematosus: immune system disease, connective tissue disease
Lupus Erythematosus, Systemic (MeSH)

INDEX TERMS: Diseases
Kawasaki disease: vascular disease, connective tissue disease, blood and lymphatic disease, integumentary system disease

INDEX TERMS: Diseases
myasthenia gravis: nervous system disease, muscle disease, immune system disease
Myasthenia Gravis (MeSH)

INDEX TERMS: Diseases

type-1 diabetes: endocrine disease/pancreas, metabolic disease
Diabetes Mellitus, Insulin-Dependent (MeSH)

INDEX TERMS: Diseases
autoimmune polyglandular syndrome type II: immune system disease

INDEX TERMS: Diseases
autoimmune lymphoproliferative syndrome: blood and lymphatic disease, immune system disease
Autoimmune Diseases (MeSH); Lymphoproliferative Disorders (MeSH)

INDEX TERMS: Miscellaneous Descriptors
autoimmunity; self-tolerance

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human (common)
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

L174 ANSWER 13 OF 13 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:394164 BIOSIS
DOCUMENT NUMBER: PREV200000394164
TITLE: **Conjugated linoleic acid** and bone biology.
AUTHOR(S): Watkins, Bruce A. [Reprint author]; Seifert, Mark F.
CORPORATE SOURCE: Department of Food Science, Lipid Chemistry and Molecular Biology Laboratory, Purdue University, West Lafayette, IN, 47907, USA
SOURCE: Journal of the American College of Nutrition, (August, 2000) Vol. 19, No. 4 with Supplement, pp. 478S-486S. print.
CODEN: JONUDL. ISSN: 0731-5724.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Sep 2000
Last Updated on STN: 8 Jan 2002

ABSTRACT:Osteoporosis, osteoarthritis and inflammatory joint disease afflict millions of people worldwide. Inflammatory cytokines inhibit chondrocyte proliferation and induce cartilage degradation for which part of the response is mediated by PGE2. Excess production of PGE2 is linked to osteoporosis and arthritis and is associated with bone and proteoglycan loss. PGE2 also influences the IGF-I/IGFBP axis to facilitate bone and cartilage formation. Recent investigations with growing rats given butter fat and supplements of CLA demonstrated an increased rate of bone formation and reduced ex vivo bone PGE2 production, respectively. Furthermore, the supplements of CLA isomers resulted in their enrichment in lipids of various bone compartments of animals. The effects of CLA on bone biology in rats (IGF action and cytokines) appear to be dependent on the level of n-6 and n-3 fatty acids in the diet; however, these studies generally showed that CLA decreased ex vivo bone PGE2 production and in osteoblast-like cultures. Anti-inflammatory diets, including nutraceutical applications of CLA, may be beneficial in moderating cyclooygenase 2 (COX-2) activity or expression (influencing PGE2 biosynthesis) and might help to reduce ***rheumatoid*** **arthritis** (secondary osteoporosis). This review summarizes findings of CLA on bone modeling in rats and effects on cellular functions of osteoblasts and chondrocytes. These experiments indicate that CLA

isomers possess anti-inflammatory activity in bone by moderating prostanoid formation.

CONCEPT CODE: Bones, joints, fasciae, connective and adipose tissue - Pathology 18006
Cytology - Animal 02506
Cytology - Human 02508
Enzymes - General and comparative studies: coenzymes 10802
Nutrition - General studies, nutritional status and methods 13202
Bones, joints, fasciae, connective and adipose tissue - Physiology and biochemistry 18004
Immunology - Immunopathology, tissue immunology 34508

INDEX TERMS: Major Concepts
Skeletal System (Movement and Support); Nutrition

INDEX TERMS: Parts, Structures, & Systems of Organisms
cartilage: skeletal system, degradation; chondrocytes: skeletal system, proliferation

INDEX TERMS: Diseases
arthritis: joint disease
Arthritis (MeSH)

INDEX TERMS: Diseases
inflammatory joint disease: immune system disease, joint disease

INDEX TERMS: Diseases
osteoarthritis: joint disease
Osteoarthritis (MeSH)

INDEX TERMS: Diseases
osteoporosis: bone disease
Osteoporosis (MeSH)

INDEX TERMS: Chemicals & Biochemicals
PGE-2 [prostaglandin E-2]; **conjugated linoleic acid**: anti-inflammatory agent; cyclooxygenase-2: expression; n-3 fatty acids; n-6 fatty acids

INDEX TERMS: Miscellaneous Descriptors
bone remodeling; enzyme activity

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
rat
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: **1839-11-8Q (conjugated linoleic acid)**
121250-47-3Q (**conjugated linoleic acid**)
329900-75-6 (cyclooxygenase-2)

363-24-6 (PROSTAGLANDIN E-2)

=> □ TEXT SEARCH #2 (broad)

```
=> file hcaplus
FILE 'HCAPLUS' ENTERED AT 12:32:47 ON 26 JAN 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 26 Jan 2006  VOL 144 ISS 5
FILE LAST UPDATED: 25 Jan 2006  (20060125/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.
'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que nos L31

L10             STR
L11          1622 SEA FILE=REGISTRY FAM FUL L10
L12             STR
L13            73 SEA FILE=REGISTRY FAM FUL L12
L19          7697 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIRHEUMATIC?/OBI
L20         19410 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ARTHRITIS/OBI (L) RHEUMATOID?/
                  OBI
L21           439 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ARTHUS/OBI
L22          5883 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLOMERULONEPHRIT?/OBI
L23           213 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SERUM SICKNESS?/OBI
L24         10829 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LUPUS ERYTHEMATOSUS+NT/CT
L29          2382 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11 (L) (THU OR PAC OR BAC OR
                  PKT OR DMA)/RL
L30           102 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13 (L) (THU OR PAC OR BAC OR
                  PKT OR DMA)/RL
L31            35 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L29 OR L30) AND (L19 OR L20
                  OR L21 OR L22 OR L23 OR L24)


=> d que nos L34

L10             STR
L11          1622 SEA FILE=REGISTRY FAM FUL L10
L12             STR
L13            73 SEA FILE=REGISTRY FAM FUL L12
L17         38331 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11
L18          3693 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13
L32            17 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (HYPERSENSITIV?/OBI (3A)
                  (TYPE III/OBI OR TYPE 3/OBI))
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L34             1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L32 AND (L17 OR L18)

=> d que nos L37

L10             STR
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L12             STR
L13            73 SEA FILE=REGISTRY FAM FUL L12
L17         38331 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11
L18          3693 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13
L35            41 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (HYPERSENSITIV? (3A) (TYPE
                  III OR TYPE 3))/BI
L37             1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L35 AND (L17 OR L18)

=> d que nos L40

L6              STR
L7             88 SEA FILE=REGISTRY FAM FUL L6
L8              STR
L9             29 SEA FILE=REGISTRY FAM FUL L8
L10             STR
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L12             STR
L13            73 SEA FILE=REGISTRY FAM FUL L12
L15          1344 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7
L16           705 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L17         38331 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11
L18          3693 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13
L19          7697 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIRHEUMATIC?/OBI
L20         19410 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ARTHRITIS/OBI (L) RHEUMATOID?/
                  OBI
L21           439 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ARTHUS/OBI
L22          5883 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLOMERULONEPHRIT?/OBI
L23           213 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SERUM SICKNESS?/OBI
L24         10829 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LUPUS ERYTHEMATOSUS+NT/CT
L25            72 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L15 OR L16 OR L17 OR L18)
                  AND (L19 OR L20 OR L21 OR L22 OR L23 OR L24)
L29          2382 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11 (L) (THU OR PAC OR BAC OR
                  PKT OR DMA)/RL
L30           102 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13 (L) (THU OR PAC OR BAC OR
                  PKT OR DMA)/RL
L31            35 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L29 OR L30) AND (L19 OR L20
                  OR L21 OR L22 OR L23 OR L24)
L40            35 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L31 AND L25

=> s (L31 or L34 or L37 or L40) not (L165 or L170)
L175           30 (L31 OR L34 OR L37 OR L40) NOT (L165 OR L170)
=> file medline
FILE 'MEDLINE' ENTERED AT 12:32:52 ON 26 JAN 2006

  FILE LAST UPDATED: 25 JAN 2006 (20060125/UP). FILE COVERS 1950 TO DATE.

  On December 11, 2005, the 2006 MeSH terms were loaded.
```

printed with author search

printed with "narrow" text search

```
 The MEDLINE reload for 2006 will soon be available.  For details
 on the 2005 reload, enter HELP RLOAD at an arrow promt (=>).
 See also:

    http://www.nlm.nih.gov/mesh/
    http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
    http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
    http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

 OLDMEDLINE is covered back to 1950.

 MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
 MeSH 2006 vocabulary.

 This file contains CAS Registry Numbers for easy and accurate

=> d que nos L66

L47         3556 SEA FILE=MEDLINE ABB=ON  PLU=ON  LINOLEIC ACID/CT
L58         7794 SEA FILE=MEDLINE ABB=ON  PLU=ON  IMMUNE COMPLEX DISEASES+NT/CT

L59        72531 SEA FILE=MEDLINE ABB=ON  PLU=ON  ARTHRITIS, RHEUMATOID+NT/CT
L60         5036 SEA FILE=MEDLINE ABB=ON  PLU=ON  ANTIRHEUMATIC AGENTS/CT
L62        29985 SEA FILE=MEDLINE ABB=ON  PLU=ON  GLOMERULONEPHRITIS+NT/CT
L63        32664 SEA FILE=MEDLINE ABB=ON  PLU=ON  LUPUS ERYTHEMATOSUS, SYSTEMIC+
                 NT/CT
L66           13 SEA FILE=MEDLINE ABB=ON  PLU=ON  L47 AND ((L58 OR L59 OR L60)
                 OR (L62 OR L63))


=> d que nos L67

L12               STR
L13            73 SEA FILE=REGISTRY FAM FUL L12
L52            78 SEA FILE=MEDLINE ABB=ON  PLU=ON  L13
L53               SEL  PLU=ON  L13 1- CHEM :     107 TERMS
L54          1128 SEA FILE=MEDLINE ABB=ON  PLU=ON  L53
L57          1128 SEA FILE=MEDLINE ABB=ON  PLU=ON  L52 OR L54
L58          7794 SEA FILE=MEDLINE ABB=ON  PLU=ON  IMMUNE COMPLEX DISEASES+NT/CT

L59         72531 SEA FILE=MEDLINE ABB=ON  PLU=ON  ARTHRITIS, RHEUMATOID+NT/CT
L60          5036 SEA FILE=MEDLINE ABB=ON  PLU=ON  ANTIRHEUMATIC AGENTS/CT
L62         29985 SEA FILE=MEDLINE ABB=ON  PLU=ON  GLOMERULONEPHRITIS+NT/CT
L63         32664 SEA FILE=MEDLINE ABB=ON  PLU=ON  LUPUS ERYTHEMATOSUS, SYSTEMIC+
                  NT/CT
L67             0 SEA FILE=MEDLINE ABB=ON  PLU=ON  L57 AND ((L58 OR L59 OR L60)
                  OR (L62 OR L63))


=> d que nos L68

L49          5826 SEA FILE=MEDLINE ABB=ON  PLU=ON  LINOLEIC ACIDS/CT
L58          7794 SEA FILE=MEDLINE ABB=ON  PLU=ON  IMMUNE COMPLEX DISEASES+NT/CT

L59         72531 SEA FILE=MEDLINE ABB=ON  PLU=ON  ARTHRITIS, RHEUMATOID+NT/CT
L60          5036 SEA FILE=MEDLINE ABB=ON  PLU=ON  ANTIRHEUMATIC AGENTS/CT
L62         29985 SEA FILE=MEDLINE ABB=ON  PLU=ON  GLOMERULONEPHRITIS+NT/CT
L63         32664 SEA FILE=MEDLINE ABB=ON  PLU=ON  LUPUS ERYTHEMATOSUS, SYSTEMIC+
                  NT/CT
L68            15 SEA FILE=MEDLINE ABB=ON  PLU=ON  L49 AND ((L58 OR L59 OR L60)
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             OR (L62 OR L63))

=> s (L66-L68) not (L166 or L171)
L176        14 ((L66 OR L67 OR L68)) NOT (L166 OR L171)

=> file embase

FILE 'EMBASE' ENTERED AT 12:32:56 ON 26 JAN 2006
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 FILE COVERS 1974 TO 19 Jan 2006 (20060119/ED)

 EMBASE has been reloaded. Enter HELP RLOAD for details.

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 substance identification.

=> d que nos L118

L12             STR
L13          73 SEA FILE=REGISTRY FAM FUL L12
L92         178 SEA FILE=EMBASE ABB=ON  PLU=ON  L13
L93             SEL  PLU=ON  L13 1- CHEM :      107 TERMS
L94         706 SEA FILE=EMBASE ABB=ON  PLU=ON  L93
L97         706 SEA FILE=EMBASE ABB=ON  PLU=ON  L92 OR L94
L103       4233 SEA FILE=EMBASE ABB=ON  PLU=ON  IMMUNE COMPLEX DISEASE+NT/CT
L104         52 SEA FILE=EMBASE ABB=ON  PLU=ON  TYPE III HYPERSENSITIV?
L105         95 SEA FILE=EMBASE ABB=ON  PLU=ON  HYPERSENSITIV? (3A) (TYPE III
                OR TYPE 3)
L107        991 SEA FILE=EMBASE ABB=ON  PLU=ON  ARTHUS
L108       1332 SEA FILE=EMBASE ABB=ON  PLU=ON  SERUM SICKNESS
L109      58197 SEA FILE=EMBASE ABB=ON  PLU=ON  RHEUMATOID ARTHRITIS+NT/CT
L110       4944 SEA FILE=EMBASE ABB=ON  PLU=ON  ANTIRHEUMATIC AGENT/CT
L112      18906 SEA FILE=EMBASE ABB=ON  PLU=ON  GLOMERULONEPHRITIS+NT/CT
L113      26386 SEA FILE=EMBASE ABB=ON  PLU=ON  SYSTEMIC LUPUS ERYTHEMATOSUS/CT

L118          0 SEA FILE=EMBASE ABB=ON  PLU=ON  L97 AND ((L103 OR L104 OR
                L105) OR (L107 OR L108 OR L109 OR L110) OR (L112 OR L113))

=> d que nos L126

L98         8251 SEA FILE=EMBASE ABB=ON  PLU=ON  LINOLEIC ACID/CT
L101          60 SEA FILE=EMBASE ABB=ON  PLU=ON  LINOLEIC ACID ETHYL ESTER/CT
L102         123 SEA FILE=EMBASE ABB=ON  PLU=ON  LINOLEIC ACID METHYL ESTER/CT
L103        4233 SEA FILE=EMBASE ABB=ON  PLU=ON  IMMUNE COMPLEX DISEASE+NT/CT
L104          52 SEA FILE=EMBASE ABB=ON  PLU=ON  TYPE III HYPERSENSITIV?
L105          95 SEA FILE=EMBASE ABB=ON  PLU=ON  HYPERSENSITIV? (3A) (TYPE III
                OR TYPE 3)
L107         991 SEA FILE=EMBASE ABB=ON  PLU=ON  ARTHUS
L108        1332 SEA FILE=EMBASE ABB=ON  PLU=ON  SERUM SICKNESS
L109       58197 SEA FILE=EMBASE ABB=ON  PLU=ON  RHEUMATOID ARTHRITIS+NT/CT
L110        4944 SEA FILE=EMBASE ABB=ON  PLU=ON  ANTIRHEUMATIC AGENT/CT
L112       18906 SEA FILE=EMBASE ABB=ON  PLU=ON  GLOMERULONEPHRITIS+NT/CT
L113       26386 SEA FILE=EMBASE ABB=ON  PLU=ON  SYSTEMIC LUPUS ERYTHEMATOSUS/CT

L126          14 SEA FILE=EMBASE ABB=ON  PLU=ON  ((L98 OR L101 OR L102) (L) (DT
                OR AD OR DO OR PK OR PD OR PO)/CT) AND ((L103 OR L104 OR L105)
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```
                OR (L107 OR L108 OR L109 OR L110) OR (L112 OR L113))

=> s (L118 or L126) not (L167 or L172)
L177         13 (L118 OR L126) NOT (L167 OR L172)
=> file biosis

FILE 'BIOSIS' ENTERED AT 12:32:59 ON 26 JAN 2006
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 25 January 2006 (20060125/ED)


=> d que nos L162

L146        5115 SEA FILE=BIOSIS ABB=ON  PLU=ON  LINOLEIC ACID/CT
L150          78 SEA FILE=BIOSIS ABB=ON  PLU=ON  HYPERSENSITIV? (3A) (TYPE III
                 OR TYPE 3)
L152       53773 SEA FILE=BIOSIS ABB=ON  PLU=ON  RHEUMATOID ARTHRITIS
L153        1059 SEA FILE=BIOSIS ABB=ON  PLU=ON  ARTHUS
L154         806 SEA FILE=BIOSIS ABB=ON  PLU=ON  SERUM SICKN?
L155        2279 SEA FILE=BIOSIS ABB=ON  PLU=ON  ANTIRHEUMAT?
L156        1051 SEA FILE=BIOSIS ABB=ON  PLU=ON  IMMUNE COMPLEX DIS?
L157       17925 SEA FILE=BIOSIS ABB=ON  PLU=ON  GLOMERULONEPHRIT?
L158       31618 SEA FILE=BIOSIS ABB=ON  PLU=ON  LUPUS ERYTHEMAT? (3A) SYSTEMIC

L162           5 SEA FILE=BIOSIS ABB=ON  PLU=ON  L146 AND (L150 OR (L152 OR
                 L153 OR L154 OR L155 OR L156 OR L157 OR L158))


=> s L162 not (L168 or L173)
L178         4 L162 NOT (L168 OR L173)
=> => dup rem L175 L176 L177 L178
FILE 'HCAPLUS' ENTERED AT 12:34:14 ON 26 JAN 2006
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FILE 'BIOSIS' ENTERED AT 12:34:14 ON 26 JAN 2006
Copyright (c) 2006 The Thomson Corporation
PROCESSING COMPLETED FOR L175
PROCESSING COMPLETED FOR L176
PROCESSING COMPLETED FOR L177
PROCESSING COMPLETED FOR L178
L179         58 DUP REM L175 L176 L177 L178 (3 DUPLICATES REMOVED)
                ANSWERS '1-30' FROM FILE HCAPLUS
                ANSWERS '31-44' FROM FILE MEDLINE
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printed with extra search

printed with "narrow" text search

ANSWERS '45-55' FROM FILE EMBASE
ANSWERS '56-58' FROM FILE BIOSIS

=> d ibib abs hitind hitstr L179 1-30; d iall L179 31-58

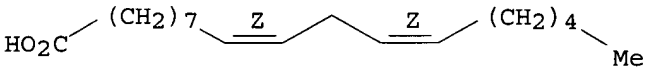
L179 ANSWER 1 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 1999:76851 HCAPLUS
DOCUMENT NUMBER: 130:261684
TITLE: Inhibition of protein denaturation by fatty acids, bile salts and other natural substances: a new hypothesis for the mechanism of action of fish oil in rheumatic diseases
AUTHOR(S): Saso, Luciano; Valentini, Giovanni; Casini, Maria Luisa; Mattei, Eleonora; Braghiroli, Laura; Mazzanti, Gabriela; Panzironi, Claudio; Grippa, Eleonora; Silvestrini, Bruno
CORPORATE SOURCE: Institute of Pharmacology and Pharmacognosy, University "La Sapienza", Rome, 00185, Italy
SOURCE: Japanese Journal of Pharmacology (1999), 79(1), 89-99
CODEN: JJPAAZ; ISSN: 0021-5198
PUBLISHER: Japanese Pharmacological Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Natural hydrophobic substances like bile salts (cholate, deoxycholate, chenodeoxycholate, lithocholate and their conjugates with glycine and taurine), fatty acids (caprylic, capric, lauric, myristic, palmitic, stearic, oleic, linoleic, arachidonic, eicosapentaenoic and docosahexaenoic acid) were much more active (EC50.simeq.10-4-10-5 M) than selected amino acids (EC50>10-2 M) and inorg. salts (EC50.simeq.10-1 M) in inhibiting heat-induced denaturation of human serum albumin in vitro. Fish oil, rich in n-3-polyunsatd. acids such as eicosapentaenoic acid and docosahexaenoic acid, administered p.o. (1 mL/kg) in the rat, protected ex vivo (after 2 h) serum against heat-induced denaturation more than bendazac, a known antidenaturant drug. Thus, we speculated that the antidenaturant activity of fish oil may be partly (in addition to the known effect on endogenous eicosanoid composition) responsible for its beneficial effects in rheumatoid arthritis and other rheumatic conditions. In this connection, it is of note that the in vitro antidenaturant activity of fish oil fatty acids was higher than that of known antidenaturant drugs such as bendazac and bindarit and nonsteroidal anti-inflammatory drugs like phenylbutazone and indomethacin which could exert beneficial effects in chronic inflammatory conditions by stabilizing endogenous proteins.
CC 1-7 (Pharmacology)
ST natural hydrophobic substance protein denaturation rheumatism; fish oil antidenaturant **antirheumatic** drug design
IT **Antirheumatic** agents
Drug design
(natural hydrophobic substances inhibition of heat-induced protein denaturation: fish oil mechanism of action in rheumatism and implication for antidenaturant drug design)
IT 51-35-4, Hydroxyproline 52-90-4, Cysteine, biological studies 56-40-6, Glycine, biological studies 56-41-7, Alanine, biological studies 56-45-1, Serine, biological studies 56-84-8, Aspartic acid, biological studies 56-85-9, Glutamine, biological studies 56-86-0, Glutamic acid, biological studies 56-87-1, Lysine, biological studies 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies **60-33-3**, Linoleic acid, biological studies 63-68-3, Methionine, biological studies 63-91-2, Phenylalanine, biological studies 70-26-8, Ornithine 70-47-3, Asparagine, biological studies 71-00-1, Histidine, biological studies 72-18-4, Valine, biological

studies 72-19-5, Threonine, biological studies 73-22-3, Tryptophan, biological studies 73-32-5, Isoleucine, biological studies 74-79-3, Arginine, biological studies 81-24-3 81-25-4 83-44-3 107-35-7, Taurine 112-80-1, Oleic acid, biological studies 124-07-2, Caprylic acid, biological studies 143-07-7, Lauric acid, biological studies 147-85-3, Proline, biological studies 334-48-5, Capric acid 360-65-6 372-75-8, Citrulline 434-13-9 474-25-9 474-74-8, GlycoLithocholic acid 475-31-0 506-32-1, Arachidonic acid 516-35-8 516-50-7 516-90-5 544-63-8, Myristic acid, biological studies 640-79-9 1218-34-4, n-Acetyl-tryptophan 6217-54-5, Docosahexaenoic acid 7447-40-7, Potassium chloride, biological studies 7632-05-5, Sodium phosphate 7647-14-5, Sodium chloride, biological studies 7757-82-6, Sodium sulphate, biological studies 10043-52-4, Calcium chloride, biological studies 10417-94-4, Eicosapentaenoic acid
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BIOL (Biological study)
(natural hydrophobic substances inhibition of heat-induced protein denaturation: fish oil mechanism of action in rheumatism and implication for antidenaturant drug design)

IT **60-33-3**, Linoleic acid, biological studies
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BIOL (Biological study)
(natural hydrophobic substances inhibition of heat-induced protein denaturation: fish oil mechanism of action in rheumatism and implication for antidenaturant drug design)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

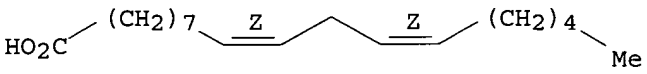
L179 ANSWER 2 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 1997:677868 HCAPLUS
DOCUMENT NUMBER: 127:341522
TITLE: Oral administration of unsaturated fatty acids: effects on human peripheral blood T lymphocyte proliferation
AUTHOR(S): Rossetti, Ronald G.; Seiler, Christina M.; Deluca, Pamela; Laposata, Michael; Zurier, Robert B.
CORPORATE SOURCE: Division of Rheumatology, University of Massachusetts Medical Center, Worcester, MA, 01655, USA
SOURCE: Journal of Leukocyte Biology (1997), 62(4), 438-443
CODEN: JLBIE7; ISSN: 0741-5400
PUBLISHER: Federation of American Societies for Experimental Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Oils enriched in certain polyunsatd. fatty acids suppress joint pain and swelling in rheumatoid arthritis (RA) patients. Because T lymphocyte activation is important to propagation of joint tissue injury in patients with RA, we examined the effects of fatty acids administered by mouth in vivo on proliferation of human lymphocytes activated through the T cell receptor complex. T cell proliferation was reduced after oral

administration of 2.4 g gamma-linolenic acid in capsules of borage seed oil. Oral administration of oils enriched in linoleic acid, the parent n-6 fatty acid, and alpha-linolenic acid, the parent n-3 fatty acid, did not influence growth of stimulated cells. Fatty acid analyses indicated that suppression of lymphocyte proliferation after gamma-linolenic acid administration was associated with increased plasma and peripheral blood mononuclear cell concns. of gamma-linolenic acid and dihomogammalinolenic acid.

CC 1-7 (Pharmacology)
Section cross-reference(s): 18, 63
ST unsatd fatty acid **antirheumatic** gamma linolenic
IT **Antirheumatic** agents
T cell (lymphocyte)
(oral administration of unsatd. fatty acids: effects on human peripheral blood T lymphocyte proliferation)
IT **60-33-3**, Linoleic acid, biological studies 463-40-1, α-Linolenic acid
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BIOL (Biological study)
(oral administration of unsatd. fatty acids: effects on human peripheral blood T lymphocyte proliferation)
IT **60-33-3**, Linoleic acid, biological studies
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BIOL (Biological study)
(oral administration of unsatd. fatty acids: effects on human peripheral blood T lymphocyte proliferation)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 3 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1026501 HCAPLUS
DOCUMENT NUMBER: 143:312013
TITLE: Esterified fatty acid composition for treatment of inflammation
INVENTOR(S): Spencer, William P.; Millsap, Patrick S.
PATENT ASSIGNEE(S): Imagenetix, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005208162	A1	20050922	US 2004-805386	20040322

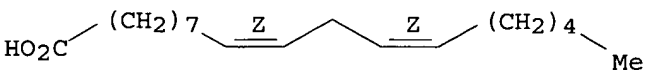
PRIORITY APPLN. INFO.: US 2004-805386 20040322

AB The invention is directed to compns. comprising lecithin, olive oil, esterified fatty acids and mixed tocophenols for use in the treatment and prevention of various types of arthritis and other inflammatory joint

conditions, periodontal diseases and psoriasis, which avoid many of the side effects associated with known treatments. The compns. of the present invention have the advantage of increased stability, a reduction of arachidonic acid in cells, a reduction in eicosanoid production and enhanced cell regulation and communication. Also disclosed are methods for using the compns. for treatment and prevention. Thus, a topical cream containing esterified fatty acids when applied twice daily for 30 days improved pain and functional performance in patients with osteoarthritis of one or both knees. Specifically, patients with osteoarthritis had significantly greater range of motion (ROM) of the knee in the supine extended and flexed knee positions, less standing postural sway, improved ability to ascend and descend stairs, improved ability to rise from sitting, walking, and sitting down, and greater unilateral balance.

IC ICM A61K031-355
ICS A61K031-225; A61K035-78
INCL 424769000; 514458000; 514547000
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
IT Arthritis
Canis familiaris
Cardiovascular system, disease
Drug bioavailability
Drug toxicity
Felis catus
Gout
Heart, disease
Human
Lupus erythematosus
Osteoarthritis
Periodontium, disease
Psoriasis
Rheumatoid arthritis
(esterified fatty acid composition for prevention and treatment of inflammation including **arthritis**)
IT **Rheumatoid arthritis**
(juvenile; esterified fatty acid composition for prevention and treatment of inflammation including **arthritis**)
IT 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies **60-33-3**, Linoleic acid, biological studies 112-80-1, Oleic acid, biological studies 143-07-7, Lauric acid, biological studies 334-48-5, Decanoic acid 373-49-9, Palmitoleic acid 463-40-1, Linolenic acid 506-30-9, Arachidic acid 544-63-8, Myristic acid, biological studies 544-64-9, Myristoleic acid
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(esterified fatty acid composition for prevention and treatment of inflammation including arthritis)
IT **60-33-3**, Linoleic acid, biological studies
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(esterified fatty acid composition for prevention and treatment of inflammation including arthritis)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 4 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:563466 HCAPLUS
DOCUMENT NUMBER: 143:103152
TITLE: Liposomal vaccine for the treatment of human hematological malignancies
INVENTOR(S): Mueller, Rolf; Graser, Andreas; Konur, Abdo; Mueller-Bruesselbach, Sabine
PATENT ASSIGNEE(S): Vectron Therapeutics Ag, Germany
SOURCE: Eur. Pat. Appl., 46 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1547581	A1	20050629	EP 2003-29802	20031223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
WO 2005063201	A2	20050714	WO 2004-EP14631	20041222
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: EP 2003-29802 A 20031223

AB The present invention relates to liposomes and compns. comprising liposomes, their production and use for the prevention and therapy of proliferative diseases, infectious diseases, vascular diseases, rheumatoid diseases, inflammatory diseases, immune diseases, and allergies. Liposomes consisting of two neg. charged phospholipids (PS and PG) in combination with cholesterol can substitute liposomes consisting of cholesterol, PE and either PS or PG.

IC ICM A61K009-127
CC 63-3 (Pharmaceuticals)
Section cross-reference(s): 15
IT Actinomyces
Actinomyces israelii
Adenoma
Adenoviridae
Allergy
Allergy inhibitors
Analgesics
Anemia (disease)
Angiogenesis inhibitors
Anthelmintics
Antiarrhythmics
Antiasthmatics
Antibiotics
Anticoagulants
Anticonvulsants

Antidiabetic agents
Antidotes
Antiemetics
Antirheumatic agents
Antitussives
Antiviral agents
Arenaviridae
Bacilli
Bacillus anthracis
Bacteroides
Birnaviridae
Blastomyces
Blastomyces dermatitidis
Blood vessel, disease
Borrelia
Borrelia burgdorferi
Bronchodilators
Calcium channel blockers
Calicivirus
Campylobacter
Candida
Candida albicans
Chlamydia
Chlamydia trachomatis
Clostridium
Clostridium perfringens
Clostridium tetani
Coccidioides
Coccidioides immitis
Cognition enhancers
Coronaviridae
Coronavirus
Corynebacterium
Corynebacterium diphtheriae
Cryptococcus (fungus)
Cryptococcus neoformans
Cytomegalovirus
Ebola virus
Enterobacter
Enterobacter aerogenes
Enterococcus
Enterococcus faecalis
Enterovirus
Equine encephalosis virus
Erysipelothrix
Erysipelothrix rhusiopathiae
Escherichia
Filoviridae
Fungicides
Fusobacterium
Fusobacterium nucleatum
Haemophilus
Haemophilus influenzae
Hantaan virus
Helicobacter
Hemorrhage
Hepadnaviridae
Hepatitis A virus
Hepatitis B virus
Herpesviridae

Histoplasma
Histoplasma capsulatum
Human
Human coxsackievirus
Human echovirus
Human herpesvirus
Human herpesvirus 1
Human herpesvirus 2
Human herpesvirus 3
Human immunodeficiency virus 1
Human parainfluenza virus
Human poliovirus
Human respiratory syncytial virus
Hypnotics and Sedatives
Immunomodulators
Immunostimulants
Immunosuppressants
Inflammation
Influenza virus
Iridoviridae
Klebsiella
Klebsiella pneumoniae
Legionella
Legionella pneumophila
Leptospira
Leukemia
Listeria
Listeria monocytogenes
Lymphoma
Mammary gland, neoplasm
Marburg virus
Measles virus
Melanoma
Mitogens
Mumps virus
Mycobacterium
Mycobacterium avium
Mycobacterium gordonae
Mycobacterium intracellulare
Mycobacterium kansasii
Mycobacterium tuberculosis
Nairovirus
Neisseria
Neisseria gonorrhoeae
Neisseria meningitidis
Neoplasm
Neuroglia, neoplasm
Orbivirus
Orthomyxoviridae
Papillomavirus
Papovaviridae
Paramyxoviridae
Parvoviridae
Parvovirus
Pasteurella
Pasteurella multocida
Phlebovirus
Picornaviridae
Polyomavirus
Poxviridae

Rabies virus
Reoviridae
Retroviridae
Rhabdoviridae
Rhinovirus
Rotavirus
Simian virus 40
Staphylococcus
Staphylococcus aureus
Streptobacillus
Streptobacillus moniliformis
Streptococcus
Streptococcus agalactiae
Streptococcus bovis
Streptococcus pneumoniae
Streptococcus pyogenes
Togaviridae
Treponema
Treponema pallidum pertenue
Vaccines
Vaccinia virus
Variola virus
Vesicular stomatitis virus
Yellow fever virus
(liposomal vaccine for treatment of human hematol. malignancies)

IT 53-43-0 57-88-5, Cholesterol, biological studies 91-22-5D, Quinoline, imidazo derivs. 111-01-3 111-02-4 2954-45-2 2954-46-3 3036-82-6, Dipalmitoylphosphatidylserine 4537-76-2, Distearoylphosphatidylethanolamine 4537-77-3, Dipalmitoylphosphatidylglycerol 4537-78-4, Distearoylphosphatidylglycerol 5195-02-8 5681-36-7, Dipalmitoylphosphatidylethanolamine 6811-55-8 9005-65-6 9011-14-7 11099-07-3D, Stearin, derivs. 14994-07-1, Diarachidonoylphosphatidylethanolamine 16777-83-6, Dielaidoylphosphatidylethanolamine 17838-77-6 20255-95-2, Dimyristoylphosphatidylethanolamine 21645-51-2, Aluminum hydroxide, biological studies 24937-47-1, Poly-L-arginine 25212-18-4, Poly-L-arginine 26266-58-0 29019-22-5, Diphytanoylphosphatidylethanolamine 32222-06-3 33069-62-4, Taxol 42436-56-6, Dilauroylphosphatidylethanolamine 53678-77-6 60355-78-4 61361-72-6, Dimyristoylphosphatidylglycerol 63644-55-3, Dilauroylphosphatidylglycerol 65617-88-1 81490-05-3 83869-56-1, GM-CSF 86388-25-2 89315-60-6 92216-05-2 93000-06-7, Pam3cys **93682-67-8** 95012-78-5 **98606-56-5** 100930-09-4 106392-12-5 107615-12-3 107615-13-4 107654-88-6 **107654-89-7** **107654-90-0** 107654-91-1 107702-50-1 107793-81-7 113213-76-6 117179-04-1 117179-06-3 117179-08-5 117179-11-0 117179-12-1 118421-51-5 **126527-13-7** 126527-14-8 126553-19-3 126553-20-6 126640-36-6 133863-30-6, Murapalmitine 141256-04-4, QS-21 160011-20-1 172889-84-8, MF 59 185256-12-6 214334-87-9, Dioleoylphosphatidylglycerol 215309-15-2 219312-69-3 294664-93-0, Bay R1005 444107-22-6 467423-50-3, Theramide 475650-37-4 481722-96-7 856181-58-3 856270-11-6 856470-52-5 856475-61-1 856700-12-4 **856700-13-5** 856700-14-6 856700-16-8 856702-08-4
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(liposomal vaccine for treatment of human hematol. malignancies)

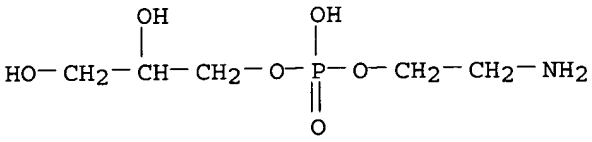
IT **93682-67-8 98606-56-5 107654-89-7 107654-90-0 126527-13-7 856700-13-5**
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(liposomal vaccine for treatment of human hematol. malignancies)

RN 93682-67-8 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)-, ester with 1,2,3-propanetriol 1-(2-aminoethyl hydrogen phosphate) monohexadecanoate (9CI) (CA INDEX NAME)

CM 1

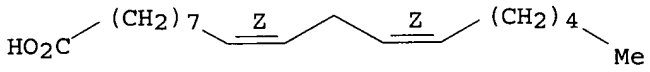
CRN 1190-00-7
CMF C5 H14 N O6 P



CM 2

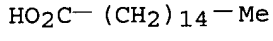
CRN 60-33-3
CMF C18 H32 O2

Double bond geometry as shown.



CM 3

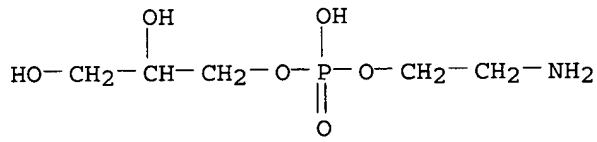
CRN 57-10-3
CMF C16 H32 O2



RN 98606-56-5 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)-, ester with 2-aminoethyl 2,3-dihydroxypropyl hydrogen phosphate monooctadecanoate (ester) (9CI) (CA INDEX NAME)

CM 1

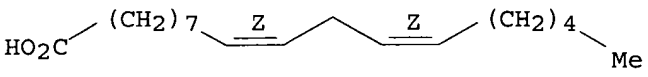
CRN 1190-00-7
CMF C5 H14 N O6 P



CM 2

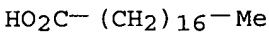
CRN 60-33-3
CMF C18 H32 O2

Double bond geometry as shown.



CM 3

CRN 57-11-4
CMF C18 H36 O2

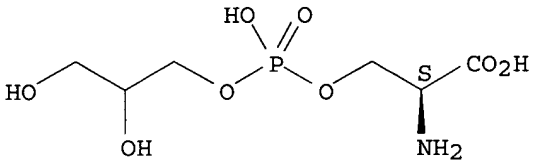


RN 107654-89-7 HCAPLUS
CN L-Serine, monoester with 1,2,3-propanetriol 1-(dihydrogen phosphate) hexadecanoate (9Z,12Z)-9,12-octadecadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 26289-09-8
CMF C6 H14 N O8 P

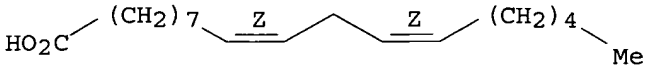
Absolute stereochemistry.



CM 2

CRN 60-33-3
CMF C18 H32 O2

Double bond geometry as shown.



CM 3

CRN 57-10-3
CMF C16 H32 O2

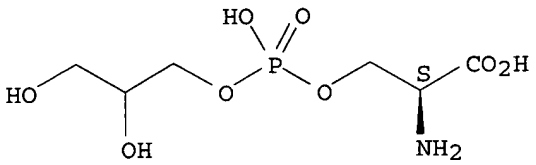
$HO_2C-(CH_2)_{14}-Me$

RN 107654-90-0 HCAPLUS
CN L-Serine, monoester with 1,2,3-propanetriol 1-(dihydrogen phosphate) (9Z,12Z)-9,12-octadecadienoate octadecanoate (9CI) (CA INDEX NAME)

CM 1

CRN 26289-09-8
CMF C6 H14 N O8 P

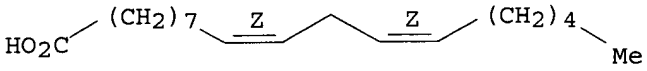
Absolute stereochemistry.



CM 2

CRN 60-33-3
CMF C18 H32 O2

Double bond geometry as shown.



CM 3

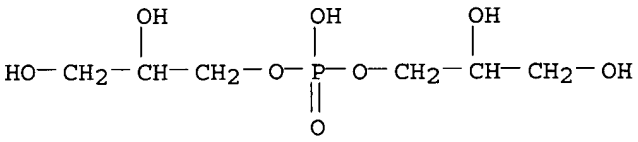
CRN 57-11-4
CMF C18 H36 O2

$HO_2C-(CH_2)_{16}-Me$

RN 126527-13-7 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)-, 3(or 2)-ester with 1,2,3-propanetriol 1-(2,3-dihydroxypropyl hydrogen phosphate) 2(or 3)-hexadecanoate (9CI) (CA INDEX NAME)

CM 1

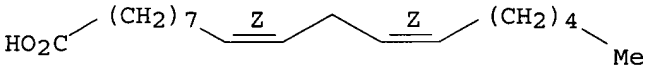
CRN 6418-92-4
CMF C6 H15 O8 P



CM 2

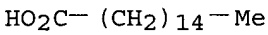
CRN 60-33-3
CMF C18 H32 O2

Double bond geometry as shown.



CM 3

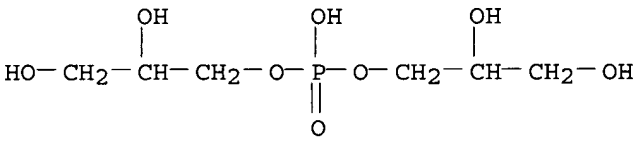
CRN 57-10-3
CMF C16 H32 O2



RN 856700-13-5 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)-, 3(or 2)-ester with 1,2,3-propanetriol 1-(2,3-dihydroxypropyl hydrogen phosphate) 2(or 3)-octadecanoate (9CI) (CA INDEX NAME)

CM 1

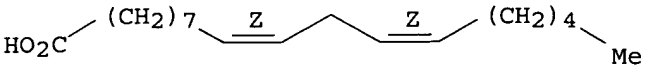
CRN 6418-92-4
CMF C6 H15 O8 P



CM 2

CRN 60-33-3
CMF C18 H32 O2

Double bond geometry as shown.



CM 3

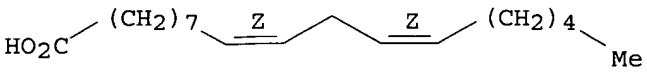
CRN 57-11-4
CMF C18 H36 O2

$HO_2C-(CH_2)_{16}-Me$

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 5 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:371801 HCAPLUS
DOCUMENT NUMBER: 143:145483
TITLE: Evening primrose: A cure-all medicine
AUTHOR(S): Okda, Amr A. M.; Omar, Amal G.; Omar, A.-Mohsen M. E.
CORPORATE SOURCE: Department of Pharmacology and Drug Toxicology, Faculty of Medicine, University of Alexandria, Alexandria, Egypt
SOURCE: Alexandria Journal of Pharmaceutical Sciences (2005), 19(1), 85-96
CODEN: AJPSES; ISSN: 1110-1792
PUBLISHER: University of Alexandria, Faculty of Pharmacy
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. Evening primrose oil is a rich source of essential fatty acids, especially linoleic acid and gamolenic acid, which play important roles in maintaining normal physiol. function of the body. The pharmacol., pharmacol. effects, pharmacokinetics, and therapeutic uses and clin. studies of evening primrose are discussed.
CC 1-0 (Pharmacology)
IT **Rheumatoid arthritis**
(evening primrose rich in linoleic acid and gamma linolenic acid is effective supplementation in essential fatty acid deficiency or metabolism disorder like rheumatic **arthritis** in human)
IT **60-33-3**, Linoleic acid, biological studies 506-26-3, Gamma linolenic acid
RL: NPO (Natural product occurrence); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(evening primrose rich in linoleic acid and gamma linolenic acid is effective supplementation in essential fatty acid deficiency or metabolism disorder in human)
IT **60-33-3**, Linoleic acid, biological studies
RL: NPO (Natural product occurrence); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(evening primrose rich in linoleic acid and gamma linolenic acid is effective supplementation in essential fatty acid deficiency or metabolism disorder in human)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 128 THERE ARE 128 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 6 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:648317 HCAPLUS
DOCUMENT NUMBER: 141:167775
TITLE: Antioxidant compound antiinflammatory compositions, and screening and diagnostic methods
INVENTOR(S): Keinan, Ehud; Alt, Aron
PATENT ASSIGNEE(S): Technion Research & Development Foundation Ltd., Israel
SOURCE: PCT Int. Appl., 158 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004066912	A2	20040812	WO 2004-IL96	20040201
WO 2004066912	A3	20051208		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1587482	A2	20051026	EP 2004-707174	20040201
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

PRIORITY APPLN. INFO.:

US 2003-443866P	P	20030131
US 2003-453213P	P	20030311
WO 2004-IL96	W	20040201

OTHER SOURCE(S): MARPAT 141:167775

AB The invention provides methods for treating medical conditions associated with inflammation employing compds. capable of inhibiting an activity and/or a formation of an oxidant associated with the inflammation, pharmaceutical composition and inhalation devices containing such compds. Further provided are methods of identifying drug candidates for treating inflammation-associated medical conditions by inhibiting an activity and/or a formation of an oxidant associated with the inflammation, as well as methods of diagnosing such medical conditions.

IC ICM A61K
CC 1-7 (Pharmacology)
Section cross-reference(s): 9, 63

IT AIDS (disease)
Acne
Allergy
Allergy inhibitors
Alzheimer's disease
Anaphylaxis
Animal cell line
Anti-AIDS agents
Anti-Alzheimer's agents
Anti-infective agents
Anti-inflammatory agents
Antiarthritics
Antiasthmatics
Antibacterial agents
Anticoagulants
Antidiabetic agents
Antimalarials
Antimigraine agents
Antioxidants
Antiparkinsonian agents
Antiphospholipid syndrome
Antirheumatic agents
Antitumor agents
Antiulcer agents
Antiviral agents
Arthritis
Arthritis
Asthma
Atherosclerosis
Autoimmune disease
Birefringence
Body fluid
Burn
Cachexia
Cardiovascular agents
Cardiovascular system, disease
Celiac disease
Cirrhosis
Connective tissue, disease
Diagnosis
Digestive tract, disease
Drug delivery systems
Drug screening
Emphysema
Food allergy
Fungicides
Gastrointestinal agents
Graves' disease
Headache
Human
Human immunodeficiency virus
Immunomodulators
Infection
Inflammation
Influenza
Injury
Kidney, disease
Kidney, neoplasm
Liver, disease
Lung, disease

Malaria
Mesophase
Multiple sclerosis
Musculoskeletal diseases
Myasthenia gravis
Myositis
Necrosis
Neoplasm
Nervous system, disease
Nervous system agents
Neutrophil
Osteoarthritis
Oxidizing agents
Pancreas, disease
Parasiticides
Parkinson's disease
Polymorphonuclear leukocyte
Prion diseases
Protozoacides
Radical scavengers
Reproductive system, disease
Rheumatoid arthritis
Sepsis
Sjogren's syndrome
Skin, disease
Sunburn
Thrombosis
Thyroid gland, disease
Transplant and Transplantation
Transplant rejection
Tuberculosis
Tuberculostatics
Ulcer
Urticaria
Wound
Wound healing promoters
(antioxidant compound antiinflammatory compns., and screening and diagnostic methods)

IT Inflammation
Kidney, disease
(crescentic **glomerulonephritis**; antioxidant compound antiinflammatory compns., and screening and diagnostic methods)

IT Inflammation
Kidney, disease
(**glomerulonephritis**, pauci-immune focal necrotizing; antioxidant compound antiinflammatory compns., and screening and diagnostic methods)

IT Disease, animal
Lupus erythematosus
(systemic; antioxidant compound antiinflammatory compns., and screening and diagnostic methods)

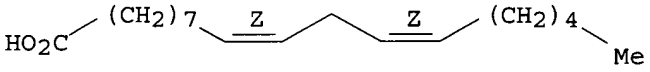
IT **60-33-3**, Linoleic acid, biological studies 69-89-6D, Xanthine, derivs. 74-85-1, Ethylene, biological studies 78-70-6, Linalool 78-79-5, Isoprene, biological studies 79-92-5, Camphene 80-56-8, α-Pinene 87-44-5, β-Caryophyllene 89-82-7, Pulegone 98-55-5, α-Terpineol 99-49-0, Carvone 99-85-4, γ-Terpinene 99-86-5, α-Terpinene 106-22-9, Citronellol 106-24-1, Geraniol 106-25-2, Nerol 106-98-9, 1-Butene, biological studies 106-99-0, Butadiene, biological studies 110-83-8, Cyclohexene, biological studies 112-80-1, Oleic acid, biological studies 115-07-1, Propylene, biological

studies 123-35-3, Myrcene 127-91-3, β-Pinene 138-86-3, Limonene 142-29-0, Cyclopentene 373-49-9, Palmitoleic acid 463-40-1, Linolenic acid 491-38-3D, Chromone, derivs. 498-16-8, Lavandulol 506-32-1, Arachidonic acid 511-59-1, β-Santalene 513-35-9, 2-Methyl-2-butene 515-00-4, Myrtenol 546-43-0, Alantolactone 563-79-1, 2,3-Dimethyl-2-butene 586-62-9, Terpinolene 590-18-1, cis-2-Butene 624-64-6, trans-2-Butene 2387-78-2, Cyperene 2867-05-2, α-Thujene 5392-40-5, Citral 5989-08-2, Longipinene 5989-27-5, D-Limonene 7212-44-4, Nerolidol 8006-39-1, Terpinol 13062-00-5 16409-43-1, Rosoxide 17066-67-0, β-Eudesmene 24703-35-3, Bicyclogermacren 29797-09-9, Cyclohexadiene 33880-83-0, β-Elemene 39029-41-9, γ-Cadinene 41702-63-0, epi-Zonarene 53111-25-4, γ-Himachalene 74806-04-5, Carene
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(antioxidant compound antiinflammatory compns., and screening and diagnostic methods)

IT **60-33-3**, Linoleic acid, biological studies
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(antioxidant compound antiinflammatory compns., and screening and diagnostic methods)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 7 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:100545 HCAPLUS
DOCUMENT NUMBER: 140:151954
TITLE: Mixed zeaxanthin ester concentrates for pharmaceuticals
INVENTOR(S): Hauptmann, Randal; Pavon, Manuel; Charles, Audrey
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U.S. Ser. No. 325,265.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004022881	A1	20040205	US 2003-453403	20030603
US 2003129264	A1	20030710	US 2002-180775	20020626
US 6784351	B2	20040831		
CA 2451441	AA	20030109	CA 2002-2451441	20020627
EP 1408737	A2	20040421	EP 2002-749705	20020627
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2005511003	T2	20050428	JP 2003-508156	20020627
US 2003196232	A1	20031016	US 2002-325265	20021219
US 2004216194	A1	20041028	US 2004-845044	20040513

WO 2004108635 A2 20041216 WO 2004-US15472 20040518
WO 2004108635 A3 20050324
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:
US 2001-302460P P 20010629
US 2002-180775 A2 20020626
US 2002-325265 A2 20021219
WO 2002-US20633 W 20020627
US 2003-453403 A 20030603

AB Mixed zeaxanthin C8-20 carboxylic acid esters in which the mixed zeaxanthin esters constitute ≥50 mg/g of the concentrate and wherein the zeaxanthin is ≥20% of the total carotenoids present when assayed after saponification are disclosed, as are the products that can be made from such a concentrate, as well as the several uses for mixed zeaxanthin esters. Dried marigold corollas (1 kg), having a mixed zeaxanthin ester content of 1.0% which is determined on an aliquot by Soxhlet extraction and subsequent spectrophotometric measurement at 445 nm, is percolated with 8-L hexane. The hexane of the resulting extractant solution is evaporated at 60°. Thirty-five grams of oleoresin having a mixed zeaxanthin ester content of 9.0% are obtained. The oleoresin is stirred for 3 h with 100 mL isopropanol at 20°. The resulting suspension is filtered and the solvent is removed at ambient temperature The resulting solid is melted at 65° and poured into a mold. After 3 h of cooling to ambient temperature, one mixed zeaxanthin ester bar (5 g) and having a mixed zeaxanthin ester content of approx. 16%is obtained. Alternatively, the mixed zeaxanthin concentrate is ground into a granular state.

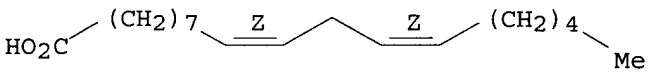
IC ICM A61K035-78
ICS A01N065-00
INCL 424764000
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 11, 17
IT Aging, animal
Alzheimer's disease
Antitumor agents
Asteraceae
Atherosclerosis
Beverages
Cataract
Drug delivery systems
Food
Immunodeficiency
Inflammation
Neoplasm
Parkinson's disease
Radiation
Rheumatoid arthritis
Tagetes erecta
(mixed zeaxanthin ester concs. for pharmaceuticals)
IT 57-10-3D, Palmitic acid, reaction with zeaxanthin 57-11-4D, Stearic acid, reaction with zeaxanthin **60-33-3D**, Linoleic acid, reaction

with zeaxanthin 112-80-1D, Oleic acid, reaction with zeaxanthin 126-29-4, Violaxanthin 127-40-2, Xanthophyll 127-40-2D, Xanthophyll, esters 143-07-7D, Lauric acid, reaction with zeaxanthin 144-68-3, Zeaxanthin 144-68-3D, Zeaxanthin, esters 144-68-3D, Zeaxanthin, reaction with fatty acids 334-48-5D, Capric acid, reaction with zeaxanthin 373-49-9D, Palmitoleic acid, reaction with zeaxanthin 432-70-2, α-Carotene 463-40-1D, Linolenic acid, reaction with zeaxanthin 472-70-8, β-Cryptoxanthin 472-92-4, δ-Carotene 502-63-6, trans-ζ-Carotene 502-64-7, Neurosporene 502-65-8, Lycopene 512-29-8, Flavoxanthin 514-90-9, β-Zeacarotene 544-63-8D, Myristic acid, reaction with zeaxanthin 1002-84-2D, Pentadecanoic acid, reaction with zeaxanthin 7235-40-7, β-Carotene 13920-14-4, Phytoene 14660-91-4, Neoxanthin 24480-38-4, α-Cryptoxanthin 27664-65-9, Phytofluene 27780-11-6, Chrysanthemaxanthin 27785-15-5, Auroxanthin 52340-80-4, cis-ζ-Carotene 68831-78-7, Antheraxanthin
RL: NPO (Natural product occurrence); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(mixed zeaxanthin ester concs. for pharmaceuticals)

IT **60-33-3D**, Linoleic acid, reaction with zeaxanthin
RL: NPO (Natural product occurrence); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(mixed zeaxanthin ester concs. for pharmaceuticals)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 8 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:2715 HCAPLUS
DOCUMENT NUMBER: 140:53415
TITLE: Novel complexes of fatty acid esters of polyhydroxyalkanes and pyridine carboxy derivatives
INVENTOR(S): Weidner, Morten Sloth
PATENT ASSIGNEE(S): Astion Development A/S, Den.
SOURCE: PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004000333	A1	20031231	WO 2003-DK423	20030620

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2491871	AA	20031231	CA 2003-2491871		20030620
EP 1560589	A1	20050810	EP 2003-729915		20030620
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
JP 2005537238	T2	20051208	JP 2004-514590		20030620
NO 2005000309	A	20050318	NO 2005-309		20050119
PRIORITY APPLN. INFO.:			DK 2002-951	A	20020620
			US 2002-389879P	P	20020620
			WO 2003-DK423	W	20030620

OTHER SOURCE(S): MARPAT 140:53415

AB The present invention relates to novel combinations of fatty acid derivs. and pyridine carboxy derivs., including fatty acid esters with glycerol and 3-carboxy pyridine derivs. such as niacinamide. Such combinations have surprisingly shown antiviral and anti-microbial activity and the use for the treatment of inflammatory conditions and infections is disclosed herein.

IC ICM A61K031-765
ICS A61K031-44; A61P031-04; A61P029-00

CC 1-7 (Pharmacology)

IT Acne
Allergy inhibitors
Alopecia
Anaphylaxis
Anti-inflammatory agents
Antiarthritics
Antiasthmatics
Antibacterial agents
Antirheumatic agents
Antiviral agents
Asthma
Autoimmune disease
Common cold
Cosmetics
Cytoprotective agents
Disinfectants
Drug interactions
Gout
Human
Inflammation
Influenza
Mammalia
Osteoarthritis
Pneumonia
Pruritus
Psoriasis
Rheumatoid arthritis
Seborrhea
Skin, disease
Sunburn
Urticaria
Vitiligo
(novel complexes of fatty acid esters of polyhydroxyalkanes and pyridine carboxy derivs. as therapeutic agents for treatment of disease and cosmetics and dietary supplements)

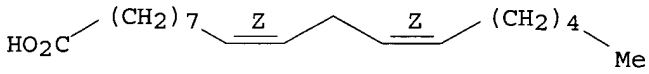
IT 50-70-4D, Sorbitol, fatty acid esters 56-81-5D, Glycerol, fatty acid esters 57-10-3D, Palmitic acid, polyhydroxyalkane esters 57-55-6D, Propylene glycol, fatty acid esters **60-33-3D**, Linoleic acid, polyhydroxyalkane esters 107-88-0D, 1,3-Butylene glycol, fatty acid esters 124-07-2D, Caprylic acid, polyhydroxyalkane esters 141-22-0D,

Ricinoleic acid, polyhydroxyalkane esters 142-62-1D, Caproic acid, polyhydroxyalkane esters 143-07-7D, Lauric acid, polyhydroxyalkane esters 334-48-5D, Capric acid, polyhydroxyalkane esters 373-49-9D, Palmitoleic acid, polyhydroxyalkane esters 463-40-1D, α-Linolenic acid, polyhydroxyalkane esters 506-26-3D, γ-Linolenic acid, polyhydroxyalkane esters 513-85-9D, 2,3-Butylene glycol, fatty acid esters 544-63-8D, Myristic acid, polyhydroxyalkane esters 544-64-9D, Myristoleic acid, polyhydroxyalkane esters 6217-54-5D, Docosahexaenoic acid, polyhydroxyalkane esters 10417-94-4D, all-cis-5,8,11,14,17-Eicosapentaenoic acid, polyhydroxyalkane esters
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(complexes with pyridine carboxy derivs.; novel complexes of fatty acid esters of polyhydroxyalkanes and pyridine carboxy derivs. as therapeutic agents for treatment of disease and cosmetics and dietary supplements)

IT **60-33-3D**, Linoleic acid, polyhydroxyalkane esters
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(complexes with pyridine carboxy derivs.; novel complexes of fatty acid esters of polyhydroxyalkanes and pyridine carboxy derivs. as therapeutic agents for treatment of disease and cosmetics and dietary supplements)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 9 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:950477 HCAPLUS
DOCUMENT NUMBER: 140:19836
TITLE: Film forming polymers, methods of use, and devices and applications thereof
INVENTOR(S): Fotinos, Spiros; Tsardaka, Ekaterini; Koborozos, George
PATENT ASSIGNEE(S): Greece
SOURCE: U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U.S. Ser. No. 537,318, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003224053	A1	20031204	US 2003-408845	20030407
WO 2004091553	A2	20041028	WO 2004-US9969	20040401
WO 2004091553	A3	20050331		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,

LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
TD, TG

EP 1613270 A2 20060111 EP 2004-759083 20040401
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

PRIORITY APPLN. INFO.: US 1999-149751P P 19990819
US 2000-537318 B2 20000329
US 2003-408845 A 20030407
WO 2004-US9969 W 20040401

AB Compns. and methods for delivering active agents to the skin of a subject are provided, comprising a polymer, i.e., polyvinyl alc., an active ingredient selected from a pharmaceutical agent, a wound healing agent and a cosmetic agent, and a solvent. The compns. are capable of delivery by rolling, spreading, aerosol or in droplets and of forming a film in contact with the skin. For example, a composition containing a local anesthetic
contained (A) 1st polyvinyl alc. (Mowiol 40-88) 7.3%, 2d polyvinyl alc. (Mowiol 18-88) 4.7%, and water 62.1%, and (B) propylene glycol 5.0%, lidocaine 5.0%, and ethanol absolute 15.9%.

IC ICM A61K007-42
ICS A61K031-522; A61K009-14; A61K031-19

INCL 424486000; 514263300; 424059000; 514557000

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 62

IT Adrenoceptor agonists
Adrenoceptor antagonists
Anti-inflammatory agents
Antibiotics
Antihistamines
Antimicrobial agents
Antioxidants
Antirheumatic agents
Cardiovascular agents
Cosmetics
Fungicides
Human
Radical scavengers
Skin
Sunburn
Vasodilators
Wound healing promoters
(film-forming polymers for delivery of cosmetic, pharmaceutical, and wound healing agents to skin)

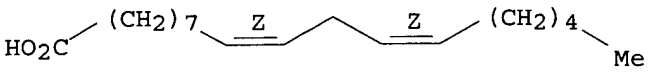
IT **60-33-3**, Linoleic acid, biological studies 69-89-6D, Xanthine, derivs. 137-58-6, Lidocaine 1244-76-4 1338-43-8, Montane 80 VGA
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(film-forming polymers for delivery of cosmetic, pharmaceutical, and wound healing agents to skin)

IT **60-33-3**, Linoleic acid, biological studies
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(film-forming polymers for delivery of cosmetic, pharmaceutical, and wound healing agents to skin)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

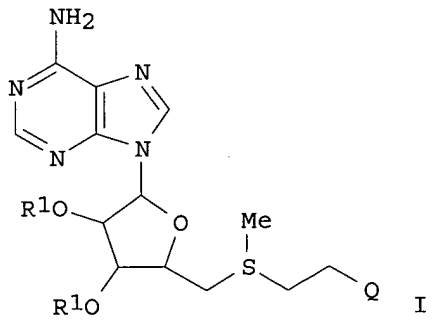
Double bond geometry as shown.



L179 ANSWER 10 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:319452 HCAPLUS
DOCUMENT NUMBER: 138:314630
TITLE: Orthomolecular sulfo-adenosylmethionine derivatives with antioxidant properties
INVENTOR(S): Wilburn, Michael D.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 17 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003078231	A1	20030424	US 2001-886612	20010622
PRIORITY APPLN. INFO.:			US 2001-886612	20010622

OTHER SOURCE(S): MARPAT 138:314630
GI



AB Disclosed are orthomol. sulfo-adenosylmethionine derivative compds., compns., and their uses for effecting a biol. activity in an animal, such as neurochem. activity; liver biol. activity; heart and artery function; cartilage, bone and joint health; stomach and/or intestinal lining resistance to ulceration; immune function; cell membrane integrity; and pain and inflammation. The compds. of the present invention are further useful for preventing or treating diseases or conditions; treating viral infections, infectious diseases, leukemia, and obesity; and reducing the risk of Sudden Infant Death Syndrome in an animal. The compds. of the present invention are I (R1 = H, C1-C10 alkyl, C2-C10 alkenyl or alkynyl, -C(O)R2; R2 = C1-C10 alkyl, C2-C10 alkenyl or alkynyl; Q = -C(NH3)C(O)AX, -C(COOH)NHX; A = O, N; X = a defined reaction product) or pharmaceutically acceptable salt, ester or solvate thereof. α-(S-adenosylmethionine)-

O-tocopherol was prepared from N-Acetyl-S-benzyl-L-homocysteine, α-tocopherol, and 5'-O-p-Tolylsulfonyladenosine.

IC ICM A61K031-7076
ICS C07H019-16
INCL 514045000; 536027300
CC 1-12 (Pharmacology)
Section cross-reference(s): 34
IT Inflammation
Kidney, disease
(**glomerulonephritis**, treatment of; orthomol. S-adenosyl-L-methionine derivs. with antioxidant properties)
IT Analgesics
Animal
Anti-AIDS agents
Anti-Alzheimer's agents
Anti-infective agents
Anti-inflammatory agents
Antiarthritics
Anticonvulsants
Antidepressants
Antidiabetic agents
Antiobesity agents
Antioxidants
Antiparkinsonian agents
Antirheumatic agents
Antitumor agents
Antiviral agents
Anxiolytics
Human
(orthomol. S-adenosyl-L-methionine derivs. with antioxidant properties)
IT AIDS (disease)
Aging, animal
Alzheimer's disease
Antipsychotics
Anxiety
Arthritis
Arthritis
Atherosclerosis
Behcet's syndrome
Biliary tract, disease
Cachexia
Cardiovascular system, disease
Cirrhosis
Cystic fibrosis
Diabetes mellitus
Eczema
Epilepsy
Graves' disease
Infection
Inflammation
Leukemia
Lupus erythematosus
Multiple sclerosis
Muscular dystrophy
Myasthenia gravis
Neoplasm
Nervous system, disease
Osteoarthritis
Osteoporosis
Pain

Parkinson's disease
Psoriasis
Rheumatoid arthritis
Schizophrenia
Sickle cell anemia
Transplant rejection
(treatment of; orthomol. S-adenosyl-L-methionine derivs. with antioxidant properties)

IT 50-67-9D, Serotonin, reaction products with S-adenosyl-L-methionine derivs. 50-99-7D, D-Glucose, reaction products with S-adenosyl-L-methionine derivs. 51-41-2D, Norepinephrine, reaction products with S-adenosyl-L-methionine derivs. 51-43-4D, Epinephrine, reaction products with S-adenosyl-L-methionine derivs. 51-45-6D, Histamine, reaction products with S-adenosyl-L-methionine derivs. 51-61-6D, Dopamine, reaction products with S-adenosyl-L-methionine derivs. 51-84-3D, Acetylcholine, reaction products with S-adenosyl-L-methionine derivs. 55-10-7D, reaction products with S-adenosyl-L-methionine derivs. 56-87-1D, Lysine, reaction products with S-adenosyl-L-methionine derivs. 57-00-1D, Creatine, reaction products with S-adenosyl-L-methionine derivs. 59-92-7D, reaction products with S-adenosyl-L-methionine derivs. 60-27-5D, Creatinine, reaction products with S-adenosyl-L-methionine derivs. 61-50-7D, N,N-Dimethyltryptamine, reaction products with S-adenosyl-L-methionine derivs. 61-54-1D, Tryptamine, reaction products with S-adenosyl-L-methionine derivs. 62-49-7D, Choline, reaction products with S-adenosyl-L-methionine derivs. 67-07-2D, Phosphocreatine, reaction products with S-adenosyl-L-methionine derivs. 70-18-8D, Glutathione, reaction products with S-adenosyl-L-methionine derivs. 70-26-8D, Ornithine, reaction products with S-adenosyl-L-methionine derivs. 71-00-1D, L-Histidine, reaction products with S-adenosyl-L-methionine derivs. 73-31-4D, Melatonin, reaction products with S-adenosyl-L-methionine derivs. 83-86-3D, Phytic acid, reaction products with S-adenosyl-L-methionine derivs. 86-01-1D, GTP, reaction products with S-adenosyl-L-methionine derivs. 89-00-9D, Quinolinic acid, reaction products with S-adenosyl-L-methionine derivs. 90-24-4D, Xanthoxylin, reaction products with S-adenosyl-L-methionine derivs. 90-64-2D, Mandelic acid, reaction products with S-adenosyl-L-methionine derivs. 90-71-1D, Taxicatin, reaction products with S-adenosyl-L-methionine derivs. 97-31-4D, Normetanephrine, reaction products with S-adenosyl-L-methionine derivs. 98-98-6D, Picolinic acid, reaction products with S-adenosyl-L-methionine derivs. 99-88-7D, Cumidine, reaction products with S-adenosyl-L-methionine derivs. 106-24-1D, Geraniol, reaction products with S-adenosyl-L-methionine derivs. 107-35-7D, Taurine, reaction products with S-adenosyl-L-methionine derivs. 107-92-6D, Butyric acid, reaction products with S-adenosyl-L-methionine derivs. 107-97-1D, N-Methylglycine, reaction products with S-adenosyl-L-methionine derivs. 117-39-5D, Quercetin, reaction products with S-adenosyl-L-methionine derivs. 121-34-6D, Vanillic acid, reaction products with S-adenosyl-L-methionine derivs. 126-33-0D, Sulfolane, reaction products with S-adenosyl-L-methionine derivs. 127-17-3D, reaction products with S-adenosyl-L-methionine derivs. 127-40-2D, Lutein, reaction products with S-adenosyl-L-methionine derivs. 144-68-3D, Zeaxanthin, reaction products with S-adenosyl-L-methionine derivs. 149-91-7D, Gallic acid, reaction products with S-adenosyl-L-methionine derivs. 150-86-7D, Phytol, reaction products with S-adenosyl-L-methionine derivs. 153-18-4D, Rutin, reaction products with S-adenosyl-L-methionine derivs. 305-84-0D, Carnosine, reaction products with S-adenosyl-L-methionine derivs. 327-97-9D, Chlorogenic acid, reaction products with S-adenosyl-L-methionine derivs. 446-72-0D, Genistein, reaction products with S-adenosyl-L-methionine derivs. 458-37-7D, Curcumin, reaction products with S-adenosyl-L-methionine

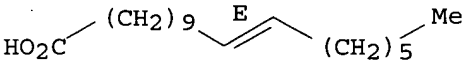
derivs. 472-61-7D, Astaxanthin, reaction products with S-adenosyl-L-methionine derivs. 472-70-8D, Cryptoxanthin, reaction products with S-adenosyl-L-methionine derivs. 476-66-4D, Ellagic acid, reaction products with S-adenosyl-L-methionine derivs. 480-18-2D, Taxifolin, reaction products with S-adenosyl-L-methionine derivs. 486-66-8D, Daidzein, reaction products with S-adenosyl-L-methionine derivs. 488-69-7D, Fructose 1,6-bisphosphate, reaction products with S-adenosyl-L-methionine derivs. 490-46-0D, Epicatechin, reaction products with S-adenosyl-L-methionine derivs. 491-70-3D, Luteolin, reaction products with S-adenosyl-L-methionine derivs. 502-61-4D, Farnesene, reaction products with S-adenosyl-L-methionine derivs. 506-32-1D, Arachidonic acid, reaction products with S-adenosyl-L-methionine derivs. 506-37-6D, Nervonic acid, reaction products with S-adenosyl-L-methionine derivs. 512-29-8D, Flavoxanthin, reaction products with S-adenosyl-L-methionine derivs. 520-26-3D, Hesperidin, reaction products with S-adenosyl-L-methionine derivs. 520-33-2D, Hesperitin, reaction products with S-adenosyl-L-methionine derivs. 520-36-5D, Apigenin, reaction products with S-adenosyl-L-methionine derivs. 528-48-3D, Fisetin, reaction products with S-adenosyl-L-methionine derivs. 528-58-5D, Cyanidin chloride, reaction products with S-adenosyl-L-methionine derivs. 536-66-3D, Cumic acid, reaction products with S-adenosyl-L-methionine derivs. 541-15-1D, Carnitine, reaction products with S-adenosyl-L-methionine derivs. 545-47-1D, Lupeol, reaction products with S-adenosyl-L-methionine derivs. 584-85-0D, Anserine, reaction products with S-adenosyl-L-methionine derivs. 590-55-6D, Carbamyl phosphate, reaction products with S-adenosyl-L-methionine derivs. 607-80-7D, Sesamin, reaction products with S-adenosyl-L-methionine derivs. 673-50-7D, N-Methylhistamine, reaction products with S-adenosyl-L-methionine derivs. **693-72-1D**, Vaccenic acid, reaction products with S-adenosyl-L-methionine derivs. 700-06-1D, Indole-3-carbinol, reaction products with S-adenosyl-L-methionine derivs. 863-03-6D, Epicatechin gallate, reaction products with S-adenosyl-L-methionine derivs. 970-74-1D, Epigallocatechin, reaction products with S-adenosyl-L-methionine derivs. 989-51-5D, Epigallocatechin gallate, reaction products with S-adenosyl-L-methionine derivs. 1118-68-9D, N,N-Dimethylglycine, reaction products with S-adenosyl-L-methionine derivs. 1192-20-7D, Homoserine lactone, reaction products with S-adenosyl-L-methionine derivs. 1361-49-5D, Taxine A, reaction products with S-adenosyl-L-methionine derivs. 1481-83-0D, Flavan-3-ol, derivs., reaction products with S-adenosyl-L-methionine derivs. 1553-55-5D, HMG Co-A, reaction products with S-adenosyl-L-methionine derivs. 2009-64-5D, Neopterin, reaction products with S-adenosyl-L-methionine derivs. 2281-22-3D, S-Allylmercapto-L-cysteine, reaction products with S-adenosyl-L-methionine derivs. 2835-81-6D, analogs, reaction products with S-adenosyl-L-methionine derivs. 2922-83-0D, Kynurenine, reaction products with S-adenosyl-L-methionine derivs. 3040-38-8D, Acetyl-L-carnitine, reaction products with S-adenosyl-L-methionine derivs. 5001-33-2D, Metanephrine, reaction products with S-adenosyl-L-methionine derivs. 5308-89-4D, Taxicin I, reaction products with S-adenosyl-L-methionine derivs. 5989-27-5D, reaction products with S-adenosyl-L-methionine derivs. 7400-08-0D, p-Coumaric acid, reaction products with S-adenosyl-L-methionine derivs. 9000-69-5D, Pectin, reaction products with S-adenosyl-L-methionine derivs. 10139-06-7D, Linatine, reaction products with S-adenosyl-L-methionine derivs. 12672-40-1D, Calcium pectate, reaction products with S-adenosyl-L-methionine derivs. 15291-75-5D, Ginkgolide A, reaction products with S-adenosyl-L-methionine derivs. 15291-76-6D, Ginkgolide C, reaction products with S-adenosyl-L-methionine derivs. 15291-77-7D, Ginkgolide B, reaction products with S-adenosyl-L-methionine derivs. 17528-72-2D, Tetrahydrobiopterin,

reaction products with S-adenosyl-L-methionine derivs. 19026-31-4D, Taxodione, reaction products with S-adenosyl-L-methionine derivs. 19253-88-4D, Trimethyllysine, reaction products with S-adenosyl-L-methionine derivs. 19660-77-6D, Phytochlorin, reaction products with S-adenosyl-L-methionine derivs. 19891-74-8D, Lycoxanthin, reaction products with S-adenosyl-L-methionine derivs. 19891-75-9D, Lycophyll, reaction products with S-adenosyl-L-methionine derivs. 22059-21-8D, ACC, reaction products with S-adenosyl-L-methionine derivs. 22150-76-1D, Biopterin, reaction products with S-adenosyl-L-methionine derivs. 22888-70-6D, Silybin, reaction products with S-adenosyl-L-methionine derivs. 23513-14-6D, 6-Gingerol, reaction products with S-adenosyl-L-methionine derivs. 29908-03-0D, S-Adenosyl-L-methionine, derivs. 57072-36-3D, Queuosine, reaction products with S-adenosyl-L-methionine derivs. 57828-26-9D, Lipoic acid, reaction products with S-adenosyl-L-methionine derivs. 72496-59-4D, Queuine, reaction products with S-adenosyl-L-methionine derivs. 75645-22-6D, Diphthamide, reaction products with S-adenosyl-L-methionine derivs. 80550-27-2D, reaction products with S-adenosyl-L-methionine derivs. 92285-01-3D, Ajoene, reaction products with S-adenosyl-L-methionine derivs. 130384-52-0D, reaction products with S-adenosyl-L-methionine derivs.
RL: BSU (Biological study, unclassified); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(orthomol. S-adenosyl-L-methionine derivs. with antioxidant properties)

IT **693-72-1D**, Vaccenic acid, reaction products with S-adenosyl-L-methionine derivs.
RL: BSU (Biological study, unclassified); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(orthomol. S-adenosyl-L-methionine derivs. with antioxidant properties)

RN 693-72-1 HCAPLUS
CN 11-Octadecenoic acid, (11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 11 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:943786 HCAPLUS
DOCUMENT NUMBER: 140:8799
TITLE: Topical compositions containing corticosteroids and antifungal agents for the treatment of skin rashes, dermatosis and lesion
INVENTOR(S): McCadden, Michael E.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 12 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6656928	B1	20031202	US 2000-652381	20000831
US 2003232086	A1	20031218	US 2003-603262	20030625

PRIORITY APPLN. INFO.: US 1999-152067P P 19990902
US 2000-652381 A1 20000831

AB A composition for topical administration comprises (a) a corticosteroid, (b) a drying agent, and (c) a broad spectrum anti-fungal agent that treats both dermatophytes and yeast. Thus, a composition contained hydrocortisone 1, clotrimazole 1, and calamine lotion 98%. One patient presented with balanoposthitis. The patient had a red glistening shiny patch on his glans penis, consistent with both balanoposthitis and a psoriasis-form dermatitis. He had a chronic rash on his penis for 5 yr, which did not clear after circumcision. The composition cleared the rash in less than a month.

IC ICM A61K031-59
ICS A61K031-56; A01N043-50

INCL 514167000; 514171000; 514396000

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

IT **Lupus erythematosus**
(cutaneous; topical compns. containing corticosteroids and antifungals for treatment of skin rashes and dermatosis and lesion)

IT 50-02-2, Dexamethasone 50-03-3, Hydrocortisone acetate 50-23-7, Hydrocortisone 50-24-8, Prednisolone 50-70-4, Sorbitol, biological studies 50-81-7, Vitamin C, biological studies 53-06-5, Cortisone 56-81-5, Glycerin, biological studies 57-11-4, Stearic acid, biological studies 57-13-6, Urea, biological studies 57-55-6, Propylene glycol, biological studies 57-88-5, Cholesterol, biological studies 58-73-1 59-50-7, 4-Chloro-m-cresol **60-33-3**, Linoleic acid, biological studies 62-54-4, Calcium acetate 64-17-5, Ethyl alcohol, biological studies 64-19-7, Acetic acid, biological studies 65-85-0, Benzoic acid, biological studies 67-63-0, Isopropyl alcohol, biological studies 67-73-2, Fluocinolone acetonide 76-22-2, Camphor 76-25-5, Triamcinolone acetonide 77-92-9D, Citric acid, esters with fatty alcs. 79-81-2, Retinyl palmitate 83-43-2, Methylprednisolone 83-88-5, Riboflavin, biological studies 89-78-1, Menthol 94-09-7, Benzocaine 94-13-3, Propylparaben 94-26-8, Butylparaben 99-76-3, Methylparaben 100-46-9D, Benzylamine, derivs. 100-51-6, Benzyl alcohol, biological studies 106-69-4, 1,2,6-Hexanetriol 107-11-9D, Allylamine, derivs. 107-41-5, Hexylene glycol 108-32-7, Propylene carbonate 108-95-2, Phenol, biological studies 110-27-0, Isopropyl myristate 110-44-1, Sorbic acid 111-01-3, Squalane 112-80-1, Oleic acid, biological studies 112-92-5, Stearyl alcohol 115-77-5D, Pentaerythritol, esters with fatty acids 121-79-9, Propyl gallate 125-10-0, Prednisone acetate 127-47-9, Retinyl acetate 128-37-0, Butylated hydroxytoluene, biological studies 139-33-3, Disodium edetate 140-65-8, Pramoxine 142-91-6, Isopropyl palmitate 151-21-3, Sodium lauryl sulfate, biological studies 288-32-4D, Imidazole, derivs. 303-98-0, Coenzyme Q10 356-12-7, Fluocinonide 378-44-9, Betamethasone 382-67-2, Desoximetasone 557-04-0, Magnesium stearate 557-05-1, Zinc stearate 638-94-8, Desonide 1314-13-2, Zinc oxide, biological studies 1321-10-4, Chlorocresol 1323-39-3, Propylene glycol stearate 1338-39-2, Sorbitan monolaurate 1338-41-6, Sorbitan monostearate 1338-43-8, Sorbitan monooleate 1406-16-2, Vitamin D 1406-18-4, Vitamin E 1524-88-5, Flurandrenolide 2002-29-1, Flumethasone pivalate 2152-44-5, Betamethasone valerate 3093-35-4, Halcinonide 4080-31-3, Quaternium-15 5534-13-4 5593-20-4, Betamethasone dipropionate 6677-98-1, Hydrocortisone propionate 6938-94-9, Diisopropyl adipate 7440-66-6, Zinc, biological studies 7631-90-5, Sodium bisulfite 7664-38-2, Phosphoric acid, biological studies 7681-57-4, Sodium metabisulfite 7722-64-7, Potassium permanganate 7758-98-7, Copper sulfate, biological studies 7761-88-8, Silver nitrate, biological studies 8007-43-0, Sorbitan sesquioleate 8011-96-9, Calamine 8050-81-5, Simethicone

9002-88-4, Polyethylene 9004-53-9, Dextrin 9004-64-2, Hydroxypropyl cellulose 9004-82-4, Sodium laureth sulfate 9004-95-9, Ceteth 20 9004-99-3, Polyethylene glycol monostearate 9005-00-9, Steareth 9005-08-7, Polyethylene glycol distearate 9005-25-8, Starch, biological studies 9005-64-5, Polysorbate 20 9005-65-6, Polysorbate 80 9005-66-7, Polysorbate 40 9005-67-8, Polysorbate 60 9006-65-9, Dimethicone 9007-16-3, Carbomer 934 9087-61-0, Aluminum starch octenylsuccinate 11099-07-3, Glyceryl stearate 11103-57-4, Vitamin A 11138-66-2, Xanthan gum 12001-79-5, Vitamin K 12441-09-7D, Sorbitan, esters 13609-67-1, Hydrocortisone butyrate 14807-96-6, Talc, biological studies 19045-66-0D, Thiocarbamic acid, derivs. 22298-29-9, Betamethasone benzoate 23593-75-1, Clotrimazole 24634-61-5, Potassium sorbate 25013-16-5, Butylated hydroxyanisole 25122-46-7, Clobetasol propionate 25231-21-4, Polyoxypropylene stearyl ether 25322-68-3, Polyethylene glycol 25322-68-3D, Polyethylene glycol, fatty ethers 25496-72-4, Glyceryl monooleate 26266-57-9, Sorbitan monopalmitate 27306-76-9 31566-31-1, Glyceryl monostearate 33564-31-7, Diflorasone diacetate 34097-16-0, Clocortolone pivalate 36653-82-4, Cetyl alcohol 37306-44-8D, Triazole, derivs. 37342-64-6D, Pyridone, derivs. 51022-69-6, Amcinonide 57524-89-7, Hydrocortisone valerate 57916-92-4, Carbomer 934P 66734-13-2, Alclometasone dipropionate 66852-54-8, Halobetasol propionate 73771-04-7, Prednicarbate 76050-42-5, Carbomer 940 80474-14-2, Fluticasone propionate 83919-23-7, Mometasone furoate 135843-95-7, Polypropylene glycol oleate 627846-14-4 627910-32-1, Amphoteric 9

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(topical compns. containing corticosteroids and antifungals for treatment of skin rashes and dermatosis and lesion)

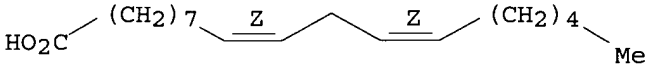
IT **60-33-3**, Linoleic acid, biological studies

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(topical compns. containing corticosteroids and antifungals for treatment of skin rashes and dermatosis and lesion)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 12 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:767727 HCAPLUS

DOCUMENT NUMBER: 139:240413

TITLE: Fatty acids and their salts as matrix metalloproteinase (MMP) inhibitors for treatment of MMP-related diseases

INVENTOR(S): Hattori, Koji; Ito, Kazuaki; Mizutani, Hiroshi

PATENT ASSIGNEE(S): Nonogawa Shoji Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003277259	A2	20031002	JP 2002-83973	20020325

PRIORITY APPLN. INFO.: JP 2002-83973 20020325

AB Fatty acids and their salts, including cis-type unsatd. fatty acids, palmitic acid, stearic acid, arachidic acid, oleic acid, linoleic acid, α-linoleic acid, arachidonic acid, eicosapentaenoic acid, docosahexaenoic acid, etc., and their salts are claimed as matrix metalloproteinase (MMP) inhibitors for treatment of MMP-related diseases, e.g. ulcer, cancer metastasis, chronic rheumatoid arthritis, osteoporosis, and periodontitis. Formulation examples of granules and capsules were given.

IC ICM A61K031-20
ICS A61K031-201; A61K031-202; A61P001-02; A61P001-04; A61P019-02; A61P019-10; A61P029-00; A61P035-04; A61P043-00

CC 1-12 (Pharmacology)
Section cross-reference(s): 63

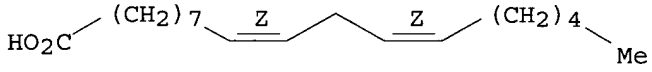
IT Anti-inflammatory agents
Antirheumatic agents
Antitumor agents
Antiulcer agents
Osteoporosis
Rheumatoid arthritis
Ulcer
(fatty acids and their salts as matrix metalloproteinase (MMP) inhibitors for treatment of MMP-related diseases)

IT 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies **60-33-3**, α-Linoleic acid, biological studies 112-80-1, Oleic acid, biological studies 506-30-9, Arachidic acid 506-32-1, Arachidonic acid 25167-62-8, Docosahexaenoic acid 25378-27-2, Eicosapentaenoic acid
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(fatty acids and their salts as matrix metalloproteinase (MMP) inhibitors for treatment of MMP-related diseases)

IT **60-33-3**, α-Linoleic acid, biological studies
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(fatty acids and their salts as matrix metalloproteinase (MMP) inhibitors for treatment of MMP-related diseases)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 13 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:977671 HCAPLUS
DOCUMENT NUMBER: 138:44656
TITLE: Krill and/or marine extracts for treatment of cardiovascular diseases, arthritis, skin cancer, diabetes, and premenstrual syndrome
INVENTOR(S): Sampalis, Tina
PATENT ASSIGNEE(S): Neptune Technologies & Bioressources Inc., Can.
SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002102394	A2	20021227	WO 2002-CA843	20020607
WO 2002102394	A3	20030410		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2449898	AA	20021227	CA 2002-2449898	20020607
EP 1406641	A2	20040414	EP 2002-734945	20020607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1516592	A	20040728	CN 2002-812181	20020607
JP 2004534800	T2	20041118	JP 2003-504980	20020607
US 2004241249	A1	20041202	US 2004-481040	20040709
PRIORITY APPLN. INFO.:			US 2001-298383P P	20010618
			WO 2002-CA843 W	20020607

AB The present invention relates to a method of treatment and/or prevention of cardiovascular disease, rheumatoid arthritis, skin cancer, premenstrual syndrome, diabetes and transdermal transport enhancement. The method comprises the administration of a therapeutically effective amount of krill and/or marine oil to a patient. The present invention also relates to a composition for the treatment and/or prevention of these diseases. To evaluate the effects of krill and/or marine oil on the course of arteriosclerotic coronary artery disease and hyperlipidemia, a study was performed with patients with known hyperlipidemia. A group of 13 patients took krill and/or marine oil concentrate capsules. A daily uptake of 1-4.8 g krill extract was providing to the patients a cholesterol decrease in the range of 15%, a triglycerides decrease in the range of 15%, a HDL increase in the range of 8%, a LDL decrease in the range of 13% and a cholesterol/HDL ratio decrease of 14%.

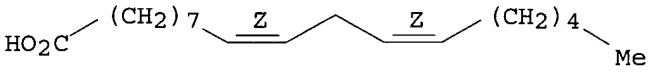
IC ICM A61K035-60
ICS A61K031-23
CC 63-3 (Pharmaceuticals)
Section cross-reference(s): 1, 62
IT Anticholesteremic agents
Cardiovascular system, disease
Cosmetics
Diabetes mellitus
Euphausiacea
Human
Osteoarthritis
Platelet aggregation inhibitors
Rheumatoid arthritis
Skin, neoplasm
(krill and/or marine exts. for treatment of cardiovascular diseases and **arthritis** and skin cancer and premenstrual syndrome)

IT 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies 57-88-5, Cholesterol, biological studies 59-02-9, α-Tocopherol **60-33-3**, Linoleic acid, biological studies 68-26-8, all-trans-Retinol 112-80-1, Oleic acid, biological studies 373-49-9, Palmitoleic acid 472-61-7, Astaxanthin 506-32-1, Arachidonic acid 506-37-6, Nervonic acid 514-78-3, Canthaxanthin 6217-54-5 7235-40-7, β-Carotene 10417-94-4
RL: COS (Cosmetic use); NPO (Natural product occurrence); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(krill and/or marine exts. for treatment of cardiovascular diseases and arthritis and skin cancer and premenstrual syndrome)

IT **60-33-3**, Linoleic acid, biological studies
RL: COS (Cosmetic use); NPO (Natural product occurrence); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(krill and/or marine exts. for treatment of cardiovascular diseases and arthritis and skin cancer and premenstrual syndrome)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 14 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:868725 HCAPLUS
DOCUMENT NUMBER: 137:346165
TITLE: Potentiation of therapeutic effects of fatty acids
INVENTOR(S): Horrobin, David Frederick
PATENT ASSIGNEE(S): Laxdale Limited, UK
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002089787	A1	20021114	WO 2002-GB2145	20020509
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2446363	AA	20021114	CA 2002-2446363	20020509
EE 200300549	A	20040216	EE 2003-549	20020509
EP 1392276	A1	20040303	EP 2002-724472	20020509
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002009484	A	20040706	BR 2002-9484	20020509
JP 2004537514	T2	20041216	JP 2002-586922	20020509

ZA 2003008417 A 20040524 ZA 2003-8417 20031029
PRIORITY APPLN. INFO.: GB 2001-11282 A 20010509
WO 2002-GB2145 W 20020509

AB The oral administration of an essential fatty acid, preferably eicosapentaenoic acid, at a defined purity together with an inhibitor of COX-1 or COX-2 or LOX or one or more of the FACL enzymes gives improved therapeutic results over administration of the fatty acid alone.

IC ICM A61K031-20
ICS A61P019-02; A61P025-24; A61P025-28; A61P035-00; A61K031-415; A61K031-19; A61K031-405

CC 1-6 (Pharmacology)
Section cross-reference(s): 7, 63

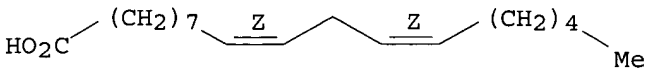
IT Alcoholism
Alzheimer's disease
Anti-Alzheimer's agents
Antiarthritics
Antiasthmatics
Anticonvulsants
Antidepressants
Antidiabetic agents
Antitumor agents
Anxiety
Arthritis
Asthma
Calcification
Calculi, urinary
Cardiovascular agents
Diabetes insipidus
Diabetes mellitus
Dysmenorrhea
Eczema
Encephalitis
Epilepsy
Fatigue, biological
Human
Kidney, disease
Mental and behavioral disorders
Multiple sclerosis
Neoplasm
Osteoporosis
Parkinson's disease
Psoriasis
Reproductive system
Respiratory system, disease
Rheumatoid arthritis
Schizophrenia
Urinary system, disease
(therapeutic effects of fatty acids)

IT **60-33-3**, Linoleic acid, biological studies **60-33-3D**, Linoleic acid, derivs., free acid, sodium, potassium, lithium salts 506-26-3, γ-Linolenic acid 506-32-1, Arachidonic acid 1783-84-2 15687-27-1, Ibuprofen 20290-75-9, Stearidonic acid 25167-62-8, Docosahexaenoic acid 25167-62-8D, Docosahexaenoic acid, derivs., free acid, sodium, potassium, lithium salts 25378-27-2, Eicosapentaenoic acid 25378-27-2D, Eicosapentaenoic acid, derivs., free acid, sodium, potassium, lithium salts 169590-42-5, Celecoxib
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(therapeutic effects of fatty acids)

IT **60-33-3**, Linoleic acid, biological studies **60-33-3D**,

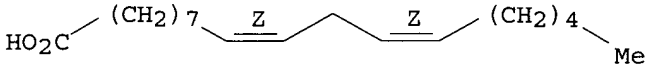
Linoleic acid, derivs., free acid, sodium, potassium, lithium salts
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(therapeutic effects of fatty acids)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 15 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:813868 HCAPLUS
DOCUMENT NUMBER: 137:304766
TITLE: Use of esters of long-chain fatty acids for treatment of autoimmune diseases
INVENTOR(S): Burstein, Pinchas; Ben-Nun, Avraham
PATENT ASSIGNEE(S): Yeda Research and Development Co., Ltd., Israel
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083059	A2	20021024	WO 2002-IL296	20020411
WO 2002083059	A3	20041007		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1480595	A2	20041201	EP 2002-724589	20020411
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004186072	A1	20040923	US 2004-474696	20040412
PRIORITY APPLN. INFO.:			IL 2001-142537 A	20010411

WO 2002-IL296 W 20020411

AB Agents selected from: (i) a C1 - C24 alkyl ester of a saturated or cis-unsatd. C10 - C24 fatty acid; (ii) a monoester or polyester of a polyol having at least four hydroxy groups with a saturated or cis-unsatd. C10 - C24 fatty acid or an anhydro derivative thereof; (iii) a monoester or polyester of a mono-, di- or poly-saccharide with a saturated or cis-unsatd. C10 - C24 fatty acid; (iv) an amide of a saturated or cis-unsatd. C10 - C24 fatty acid with an aliphatic or aromatic amine or with an amino acid, peptide, protein or aminosaccharide; and (v) combinations of any of (i) to (iv), can be used for treatment of autoimmune diseases and other immune-associated inflammatory disorders. Preferred agents are Et oleate and mannide monooleate or a combination thereof.

IC ICM A61K

CC 1-7 (Pharmacology)

IT Anti-inflammatory agents
Antidiabetic agents
Antirheumatic agents
Autoimmune disease
Rheumatoid arthritis
(autoimmune disease and immune-associated inflammatory disorders treatment with esters of long-chain fatty acids)

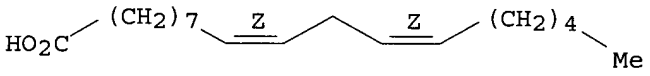
IT 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies **60-33-3**, Linoleic acid, biological studies 111-62-6, Ethyl oleate 112-80-1, Oleic acid, biological studies 143-07-7, Lauric acid, biological studies 334-48-5, Capric acid 373-49-9, Palmitoleic acid 463-40-1, Linolenic acid 506-26-3, γ-Linolenic acid 506-30-9, Arachidic acid 506-32-1, Arachidonic acid 544-63-8, Myristic acid, biological studies **693-72-1**, Vaccenic acid 25339-93-9, Mannide monooleate
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(autoimmune disease and immune-associated inflammatory disorders treatment with esters of long-chain fatty acids)

IT **60-33-3**, Linoleic acid, biological studies **693-72-1**, Vaccenic acid
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(autoimmune disease and immune-associated inflammatory disorders treatment with esters of long-chain fatty acids)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

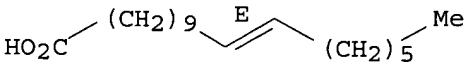
Double bond geometry as shown.



RN 693-72-1 HCAPLUS

CN 11-Octadecenoic acid, (11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 16 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:813867 HCAPLUS
DOCUMENT NUMBER: 137:293554
TITLE: Anti-inflammatory fatty alcohols and fatty acid esters useful as antigen carriers
INVENTOR(S): Cohen, Irun R.; Shinitzky, Meir; Margalit, Raanan
PATENT ASSIGNEE(S): Yeda Research and Development Co., Ltd., Israel
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083058	A2	20021024	WO 2002-IL295	20020411
WO 2002083058	A3	20040226		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2442943	AA	20021024	CA 2002-2442943	20020411
EP 1408951	A2	20040421	EP 2002-761953	20020411
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1514736	A	20040721	CN 2002-811488	20020411
JP 2004526757	T2	20040902	JP 2002-580863	20020411
NZ 528783	A	20051028	NZ 2002-528783	20020411
ZA 2003007784	A	20041006	ZA 2003-7784	20031006
NO 2003004557	A	20031205	NO 2003-4557	20031010
US 2004247604	A1	20041209	US 2004-474448	20040729

PRIORITY APPLN. INFO.:	IL 2001-142536	A	20010411
	WO 2002-IL295	W	20020411

AB Therapeutic prepns. are provided for treatment of a T-cell mediated disease or condition comprising an antigen and a carrier, wherein said antigen is an antigen recognized by inflammatory T cells associated with the pathogenesis of said T-cell mediated disease or condition, and wherein said carrier is an anti-inflammatory immunomodulator selected from: (a) a saturated or cis-unsatd. C10-C20 fatty alc. or an ester thereof with a C1-C6 alkanoic acid; and (b) a saturated or cis-unsatd. C10-C20 fatty acid ester selected from a C1-C6 alkyl ester, a monoester with a C2-C6 polyol having a least two hydroxy groups, and a diester with glycerol. The fatty alcs. and fatty acid esters shift the T-cell cytokine response in the patient from Th1 to Th2. The T-cell mediated disease is an autoimmune disease such as type I diabetes, multiple sclerosis, rheumatoid arthritis, and autoimmune thyroiditis.

IC ICM A61K
CC 15-2 (Immunochemistry)
Section cross-reference(s): 1
IT Anti-inflammatory agents
Autoimmune disease
Human
Multiple sclerosis
Rheumatoid arthritis

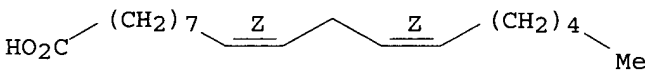
T cell (lymphocyte)
Vaccines
(anti-inflammatory fatty alcs. and fatty acid esters useful as antigen carriers in treatment of autoimmune diseases)

IT 50-69-1D, Ribose, fatty acid esters 50-99-7D, Glucose, fatty acid esters 56-81-5D, Glycerol, fatty acid esters 57-10-3D, Palmitic acid, esters 57-11-4D, Stearic acid, esters 57-48-7D, Fructose, fatty acid esters 59-23-4D, Galactose, fatty acid esters **60-33-3D**, Linoleic acid, esters 107-21-1D, 1,2-Ethylene glycol, fatty acid esters 110-63-4D, 1,4-Butanediol, fatty acid esters 111-62-6, Ethyl oleate 112-30-1, Decyl alcohol 112-53-8, Lauryl alcohol 112-62-9, Methyl oleate 112-72-1, Myristyl alcohol 112-80-1D, Oleic acid, esters 112-92-5, Stearyl alcohol 143-07-7D, Lauric acid, esters 143-28-2, Oleyl alcohol 334-48-5D, Capric acid, esters 373-49-9D, Palmitoleic acid, esters 463-40-1D, Linolenic acid, esters 504-63-2D, 1,3-Propanediol, fatty acid esters **506-17-2D**, cis-Vaccenic acid, esters 506-26-3D, γ-Linolenic acid, esters 506-30-9D, Arachidic acid, esters 506-32-1D, Arachidonic acid, esters 506-43-4, Linoleyl alcohol 506-44-5, Linolenyl alcohol 544-63-8D, Myristic acid, esters 3458-28-4D, Mannose, fatty acid esters 24149-05-1, γ-Linolenyl alcohol 25496-72-4, Glyceryl monooleate 25637-84-7, Glyceryl dioleate 36653-82-4, Cetyl alcohol 291279-66-8
RL: BSU (Biological study, unclassified); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study);
USES (Uses)
(anti-inflammatory fatty alcs. and fatty acid esters useful as antigen carriers in treatment of autoimmune diseases)

IT **60-33-3D**, Linoleic acid, esters **506-17-2D**, cis-Vaccenic acid, esters
RL: BSU (Biological study, unclassified); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study);
USES (Uses)
(anti-inflammatory fatty alcs. and fatty acid esters useful as antigen carriers in treatment of autoimmune diseases)

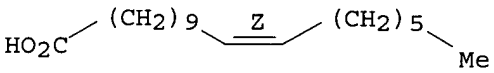
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 506-17-2 HCAPLUS
CN 11-Octadecenoic acid, (11Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 17 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:71890 HCAPLUS
DOCUMENT NUMBER: 136:113172
TITLE: Formulations containing thyroid hormones or thyroid hormone-like agonist compounds for treating

dermatological conditions
INVENTOR(S): Lavin, Thomas N.
PATENT ASSIGNEE(S): Karo Bio AB, Swed.; Dean, John, Paul
SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002005834	A2	20020124	WO 2001-GB3182	20010716
WO 2002005834	A3	20030501		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6380255	B1	20020430	US 2000-617052	20000714
CA 2415285	AA	20020124	CA 2001-2415285	20010716
EP 1328265	A2	20030723	EP 2001-949712	20010716
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004519418	T2	20040702	JP 2002-511766	20010716

PRIORITY APPLN. INFO.:

US 2000-617052	A	20000714
US 1995-481698	B2	19950607
WO 1996-US9975	W	19960607
US 1998-973627	A2	19980309
WO 2001-GB3182	W	20010716

AB The present invention is directed to the use of at least one thyroid hormone compound or thyroid hormone-like agonist compound in the preparation of a topical medicament for the treatment of a dermatol. condition affecting the dermis. The thyroid hormone compound or the thyroid hormone-like agonist compound binds to TR-α or TR-β with an equilibrium dissociation constant, Kd, of less than 5 x 10-6 M. The invention is also directed to a composition for treating a dermatol. conditions affecting the dermis and to an article of manufacture comprising packaging material and a pharmaceutical agent contained within the packaging material, wherein the pharmaceutical agent is therapeutically effective for treating such a condition. Use of at least one thyroid hormone or thyroid hormone-like agonist compound in the preparation of a topical medicament for the pre-treatment of skin in dermatol. surgery is also provided.

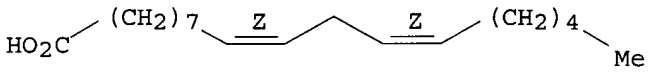
IC ICM A61K038-00
CC 2-7 (Mammalian Hormones)
Section cross-reference(s): 1, 63
IT **Rheumatoid arthritis**
(atrophy from; formulations containing thyroid hormones or thyroid hormone-like agonist compds. for treating dermatol. conditions)
IT 57-10-3D, Palmitic acid, fatty acids, esters, or triglycerides, biological studies **60-33-3D**, Linoleic acid, fatty acids, esters, or triglycerides, biological studies 112-80-1D, Oleic acid, fatty acids, esters, or triglycerides, biological studies 463-40-1D, Linolenic acid, fatty acids, esters, or triglycerides

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(pharmaceutical formulation base; formulations containing thyroid hormones or thyroid hormone-like agonist compds. for treating dermatol. conditions)

IT **60-33-3D**, Linoleic acid, fatty acids, esters, or triglycerides, biological studies
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(pharmaceutical formulation base; formulations containing thyroid hormones or thyroid hormone-like agonist compds. for treating dermatol. conditions)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 18 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:315408 HCAPLUS
DOCUMENT NUMBER: 136:330319
TITLE: Novel antioxidants
INVENTOR(S): Avery, Mitchell Allen; Pershadsingh, Harrihar A.
PATENT ASSIGNEE(S): Bethesda Pharmaceuticals, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 56 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002048798	A1	20020425	US 2001-809518	20010314
US 6664287	B2	20031216		
PRIORITY APPLN. INFO.:			US 2000-189514P P	20000315
OTHER SOURCE(S):		MARPAT 136:330319		

AB This invention comprises administering to a human or animal in need of treatment an effective amount of an antioxidant lipoic acid derivative and/or pharmaceutically acceptable salts and solvates thereof for the treatment or prevention of pathol. (inflammatory, proliferative and degenerative diseases, e.g. diabetes mellitus, atherosclerosis, Alzheimer's disease and chronic viral diseases) and non-pathol. (e.g. skin aging and wrinkle formation) conditions caused by oxidative damage. Methods of synthesizing novel antioxidant lipoic acid derivs. and their use in preventing or treating diseases or conditions caused by oxidative stress and other free radical mediated conditions are described. Another aspect of this invention is the use of these antioxidant compns. for the protection of skin from damage caused by UV radiation and dessication, and to provide improved skin feel by desquamating, cleansing and clarifying the skin. The compns. described in this invention increase cellular viability of epidermal cells, promote cytoprotection, and decrease the production of inflammatory mediators such as inflammatory cytokines in these cells. The antioxidant compns. are incorporated into sunscreen products, soap, moisturizing lotions, skin toners, and other skin care products.

IC ICM C07H007-06
ICS C07D339-04; C12N009-00

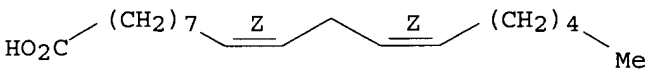
INCL 435183000
CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 1, 4, 28, 63
IT Acne
Alcoholism
Antioxidants
Atherosclerosis
Cosmetics
Dermatitis
Drug toxicity
Drugs
Eczema
Hepatitis
Human
Hypertension
Hypoxia
Infection
Inflammation
Ionizing radiation
Keloid
Obesity
Osteoarthritis
Osteoporosis
Oxidative stress, biological
Poisoning, biological
Psoriasis
Rheumatoid arthritis
Seborrhea
Shampoos
Sjogren's syndrome
Skin, disease
Skin preparations (pharmaceutical)
Thrombosis
Transformation, neoplastic
UV radiation
Wart
(lipoate derivs. as antioxidants for skin products and other uses associated with oxidative stress)
IT **Lupus erythematosus**
(systemic; lipoate derivs. as antioxidants for skin products and other uses associated with oxidative stress)
IT 50-21-5, Lactic acid, biological studies 50-81-7D, Ascorbic acid, derivs. 57-10-3, Palmitic acid, biological studies **60-33-3**, Linoleic acid, biological studies 68-26-8D, Retinol, derivs. 79-14-1, Glycolic acid, biological studies 110-15-6, Succinic acid, biological studies 112-80-1, Oleic acid, biological studies 112-86-7, Erucic acid 117-39-5D, Quercetin, derivs. 121-79-9D, Propyl gallate, derivs. 123-31-9D, Hydroquinone, derivs. 123-99-9, Azelaic acid, biological studies 127-17-3, Pyruvic acid, biological studies 128-37-0D, BHT, derivs. 143-07-7, Lauric acid, biological studies 446-72-0D, Genistein, derivs. 463-40-1, Linolenic acid 486-66-8D, Daidzein, derivs. 506-32-1, Arachidonic acid 520-36-5D, Apigenin, derivs. 593-39-5 1077-27-6D, S-α-Lipoic acid, derivs. 1200-22-2D, R-α-Lipoic acid, derivs. 1406-16-2D, Vitamin D, derivs. 1406-18-4D, Vitamin E, derivs. 1948-33-0D, TBHQ, derivs. 5694-54-2D, Isolipoic acid, derivs. 6217-54-5, Docosahexaenoic acid 10417-94-4, Eicosapentaenoic acid 25013-16-5D, BHA, derivs. 57828-26-9, Lipoic acid 98462-03-4, 8-(S)-Hydroxyeicosatetraenoic acid
RL: COS (Cosmetic use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(lipoate derivs. as antioxidants for skin products and other uses associated with oxidative stress)

IT **60-33-3**, Linoleic acid, biological studies
RL: COS (Cosmetic use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(lipoate derivs. as antioxidants for skin products and other uses associated with oxidative stress)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 19 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:256747 HCAPLUS
DOCUMENT NUMBER: 136:257266
TITLE: Methods of diagnosing and treating small intestinal bacterial overgrowth and related conditions
INVENTOR(S): Lin, Henry C.; Pimentel, Mark
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 53 pp., Cont.-in-part of U. S. Ser. No. 374,142.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002039599	A1	20020404	US 2001-837797	20010417
CA 2220451	AA	19961121	CA 1996-2220451	19960516
US 5977175	A	19991102	US 1997-832307	19970403
US 6861053	B1	20050301	US 1999-374142	19990811
US 2002094346	A1	20020718	US 1999-420046	19991018
US 6558708	B1	20030506	US 2000-546119	20000410
CA 2444548	AA	20021024	CA 2002-2444548	20020416
WO 2002083926	A2	20021024	WO 2002-US12034	20020416
WO 2002083926	A3	20030515		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1385476	A2	20040204	EP 2002-725704	20020416
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2005509588	T2	20050414	JP 2002-582263	20020416
US 2004180834	A1	20040916	US 2004-810020	20040326
US 2005014693	A1	20050120	US 2004-853824	20040526
US 2005008652	A1	20050113	US 2004-915193	20040810

PRIORITY APPLN. INFO.:

US 1995-442843	B1 19950517
US 1997-832307	A1 19970403
US 1999-359583	B2 19990722
US 1999-374142	A2 19990811
US 1999-420046	A2 19991018
US 2000-546119	A2 20000410
US 1999-374143	A2 19990811
WO 2000-US22030	A 20000811
WO 2000-US22168	A 20000811
WO 2001-US11238	A 20010407
US 2001-837797	A 20010417
US 2002-107240	A3 20020326
WO 2002-US12034	W 20020416
US 2004-810020	A1 20040326

AB Disclosed is a method of treating small intestinal bacterial overgrowth (SIBO) or a SIBO-caused condition in a human subject. SIBO-caused conditions include irritable bowel syndrome, fibromyalgia, chronic pelvic pain syndrome, chronic fatigue syndrome, depression, impaired mentation, impaired memory, halitosis, tinnitus, sugar craving, autism, attention deficit/hyperactivity disorder, drug sensitivity, an autoimmune disease, and Crohn's disease. Examples are provided showing effects of antibiotics on SIBO, demonstrating the roles of peptide YY and the serotoninergic/adrenergic/opioid pathways in SIBO, and the effects of ondansetron, propranolol, norepinephrine and naloxone on intestinal transit. The invention thus relates to slowing upper gastrointestinal transit, thereby enhancing the digestion and/or absorption of predigested nutrients. Gastrointestinal transit-slowing compns. comprise active agents such as lipids, serotonin, serotonin agonists, serotonin re-uptake inhibitors, peptide YY, calcitonin gene-related peptide, adrenergic agonists and opioid agonists. Also disclosed are a method of screening for the abnormally likely presence of SIBO in a human subject and a method of detecting SIBO in a human subject. A method of determining the relative severity of SIBO or a SIBO-caused condition in a human subject, in whom small intestinal bacterial overgrowth has been detected, is also disclosed.

IC ICM A61K035-22
ICS A61K035-23; A01N031-00; A61K038-00

INCL 424558000

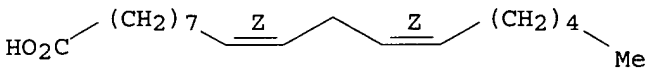
CC 1-10 (Pharmacology)
Section cross-reference(s): 9, 14, 63

IT **Lupus erythematosus**
(systemic; treating small intestinal bacterial overgrowth and related conditions)

IT 50-67-9, Serotonin, biological studies 57-10-3, Hexadecanoic acid, biological studies 57-11-4, Stearic acid, biological studies **60-33-3**, Linoleic acid, biological studies 112-79-8, Elaidic acid 112-80-1, Oleic acid, biological studies 112-85-6, Behenic acid 112-86-7, Erucic acid 124-07-2, Caprylic acid, biological studies 142-62-1, Caproic acid, biological studies 143-07-7, Lauric acid, biological studies 334-48-5, Capric acid 373-49-9, Palmitoleic acid 463-40-1, Linolenic acid 506-30-9, Arachidic acid 506-32-1, Arachidonic acid 506-33-2, Brassidic acid 506-37-6, Nervonic acid 544-63-8, Myristic acid, biological studies 1002-96-6, Cetoleic acid 2441-53-4, Columbinic acid 2548-85-8, Clupanodonic acid 7440-69-9D, Bismuth, compds. 7553-56-2D, Iodine, compds. 7722-84-1, Hydrogen peroxide, biological studies 10417-94-4, Timnodonic acid 16110-51-3, Cromolyn 20590-32-3, Mead acid 25167-62-8, Docosahexaenoic acid 26764-41-0, Eicosenoic acid 60607-34-3, Oxatomide 83652-28-2, Calcitonin gene-related peptide 106388-42-5, Peptide YY
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(treating small intestinal bacterial overgrowth and related conditions)
IT **60-33-3**, Linoleic acid, biological studies
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(treating small intestinal bacterial overgrowth and related conditions)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 20 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:767901 HCAPLUS
DOCUMENT NUMBER: 137:284345
TITLE: Active components based on lipoic acid and polyenoic fatty acids, and their compositions for pharmaceuticals, foods, and cosmetics
INVENTOR(S): Gianfranco De Paoli, Ambrosi
PATENT ASSIGNEE(S): General Topics S.R.L., Italy
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002293711	A2	20021009	JP 2001-115842	20010413
PRIORITY APPLN. INFO.:			IT 2001-BS27 A	20010323

AB The active components containing lipoic acid and polyenoic fatty acids selected from linoleic acid, linolenic acid, and oleic acid are useful for pharmaceutical compns. for treatment of degenerative diseases, dermatitis, alopecia, skin ulcer, other skin diseases, rheumatoid arthritis, etc., for skin-lightening, antiaging, and antiwrinkle cosmetics, and for foods intended for body weight loss. A composition containing lipoic acid 40, polyenoic fatty acid 40, and EtOH 20 weight% significantly inhibited skin pigmentation. Formulation examples are given.
IC A61K007-00; A23L001-30; A61K007-48; A61K031-19; A61K031-381; A61P009-14; A61P017-00; A61P017-06; A61P017-08; A61P017-10; A61P017-14; A61P017-16; A61P019-02; A61P029-00; A61P037-08; A61P039-06
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 17, 62
IT Antiarthritics
Antioxidants
Antirheumatic agents
Drugs
Food
Oxidative stress, biological
Radical scavengers
Skin preparations (pharmaceutical)
(lipoic acid and polyenoic fatty acids for pharmaceutical, food, and cosmetic compns.)
IT Acne
Alopecia

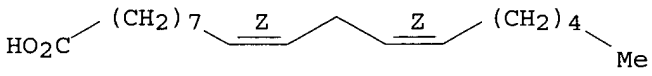
Burn
Cardiovascular agents
Cardiovascular system, disease
Dermatitis
Eczema
Erythema
Granuloma
Keratosis
Osteoarthritis
Psoriasis
Rheumatoid arthritis
(therapeutic agents; lipoic acid and polyenoic fatty acids for pharmaceutical, food, and cosmetic compns.)

IT **60-33-3**, Linoleic acid, biological studies 112-80-1, Oleic acid, biological studies 462-20-4, Dihydrolipoic acid 463-40-1, Linolenic acid 1077-27-6, (S)-Lipoic acid 1077-28-7, 1,2-Dithiolane-3-pentanoic acid 1200-22-2, Lipoic acid
RL: BSU (Biological study, unclassified); COS (Cosmetic use); FFD (Food or feed use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(lipoic acid and polyenoic fatty acids for pharmaceutical, food, and cosmetic compns.)

IT **60-33-3**, Linoleic acid, biological studies
RL: BSU (Biological study, unclassified); COS (Cosmetic use); FFD (Food or feed use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(lipoic acid and polyenoic fatty acids for pharmaceutical, food, and cosmetic compns.)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 21 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:114958 HCAPLUS
DOCUMENT NUMBER: 134:168319
TITLE: Periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biological use thereof
INVENTOR(S): Cevc, Gregor; Huebner, Stefan
PATENT ASSIGNEE(S): Idea Ag, Germany
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001010413	A2	20010215	WO 2000-EP7546	20000803
WO 2001010413	A3	20010816		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,

HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2377422	AA	20010215	CA 2000-2377422	20000803
JP 2003506398	T2	20030218	JP 2001-514933	20000803
PRIORITY APPLN. INFO.:			DE 1999-19936665 A	19990804
			WO 2000-EP7546 W	20000803

AB This invention describes a method for preparing pharmaceutically usable compns. comprising periodic structures consisting of polyelectrolytes sandwiched between lipid aggregates having at least one charged component which is characterized in that a suspension of non-periodic, preferably mono- or bilayer like, lipid aggregates, a solution of polyelectrolyte mols., and a solution of oligovalent linkers are sep. made and then mixed to form said periodic structures, the simultaneous presence of said components catalyzing the formation of controlling the rate of formation of said periodic structures comprising at least one layer of lipid component associated with a layer of polyelectrolyte mols.

IC ICM A61K009-127

CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 3, 15

IT Anti-inflammatory agents
Antiarthritics
Anticonvulsants
Behcet's syndrome
Bone, disease
Cataract
Chelating agents
Drug delivery systems
Eosinophilia
Evaporation
Filtration
Freeze drying
Gene therapy
Genetic vectors
Homogenization
Infection
Lupus erythematosus
Myasthenia gravis
Osteoarthritis
Pain
Particle size distribution
Periodic structures
Polyelectrolytes
Pore size distribution
Psoriasis
Skin, disease
Skin, disease
(periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

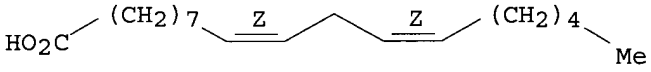
IT 54-85-3, Isonicotinic acid hydrazide 57-56-7, Semicarbazide 60-35-5, Acetamide, biological studies 67-62-9, Methoxyamine 71-44-3, Spermine 74-89-5, Methylamine, biological studies 75-04-7, Ethylamine, biological studies 75-50-3, Trimethylamine, biological studies 79-05-0, Propionamide 107-10-8, n-Propylamine, biological studies 107-15-3, Ethylenediamine, biological studies 109-73-9, n-Butylamine, biological studies 109-76-2, 1,3-Diaminopropane 109-85-3, 2-Methoxyethylamine

109-89-7, Diethylamine, biological studies 110-60-1, Putrescine
110-76-9, 2-Ethoxyethylamine 121-44-8, Triethylamine, biological studies
124-20-9, Spermidine 124-40-3, Dimethylamine, biological studies
141-43-5, Ethanolamine, biological studies 143-19-1, Sodium oleate
302-01-2, Hydrazine, biological studies 302-95-4, Sodium deoxycholate
462-94-2, Cadaverine 590-88-5, 1,3-Diaminobutane 629-25-4, Sodium laurate 822-12-8, Sodium myristate **822-17-3**, Sodium linoleate
3282-73-3, DDAB 16409-34-0, Sodium glycodeoxycholate 18175-45-6, Sodium elaidate 104162-48-3, Dotma 124050-77-7 137056-72-5, Dc-chol
144189-73-1, Dotap 153312-64-2, Dmrie 168479-03-6, DOSPA
169619-96-9, Dotim
RL: PEP (Physical, engineering or chemical process); PRP (Properties); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT **822-17-3**, Sodium linoleate
RL: PEP (Physical, engineering or chemical process); PRP (Properties); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

RN 822-17-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)-, sodium salt (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 22 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:343550 HCAPLUS
DOCUMENT NUMBER: 135:132034
TITLE: Inhibition of heat-induced denaturation of albumin by nonsteroidal antiinflammatory drugs (NSAIDs): pharmacological implications
AUTHOR(S): Saso, Luciano; Valentini, Giovanni; Casini, Maria Luisa; Grippa, Eleonora; Gatto, Maria Teresa; Leone, Maria Grazia; Silvestrini, Bruno
CORPORATE SOURCE: Department of Pharmacology of Natural Substances and General Physiology, University of Rome "La Sapienza", Rome, 00185, Italy
SOURCE: Archives of Pharmacal Research (2001), 24(2), 150-158
CODEN: APHRDQ; ISSN: 0253-6269
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The activity of nonsteroidal antiinflammatory drugs (NSAIDs) in rheumatoid arthritis is not only due to the inhibition of the production of prostaglandins, which can even have beneficial immunosuppressive effects in chronic inflammatory processes. Since we speculated that these drugs could also act by protecting endogenous proteins against denaturation, we evaluated their effect on heat-induced denaturation human serum albumin

(HSA) in comparison with several fatty acids which are known to be potent stabilizers of this protein. By the Mizushimas assay and a recently developed HPLC assay, we observed that NSAIDs were slightly less active [EC50.apprx.10-5-10-4 M] than FA and that the HPLC method was less sensitive but more selective than the turbidimetric assay, i.e. it was capable of distinguishing true antiaggregant agents like FA and NSAIDs from substances capable of inhibiting the precipitation of denatured protein aggregates. In conclusion, this survey could be useful for the development of more effective agents in protein condensation diseases like rheumatic disorders, cataract and Alzheimer's disease.

CC 1-7 (Pharmacology)

ST NSAIDs albumin denaturation Mizushimas assay; nonsteroidal antiinflammatory **antirheumatic** protein condensation disease

IT **Antirheumatic** agents
(inhibition of heat-induced denaturation of albumin by nonsteroidal antiinflammatory drugs: pharmacol. implications)

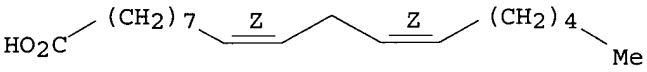
IT 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies **60-33-3**, Linoleic acid, biological studies 112-80-1, Oleic acid, biological studies 124-07-2, Caprylic acid, biological studies 143-07-7, Lauric acid, biological studies 334-48-5, Capric acid 463-40-1, α-Linolenic acid 506-26-3, γ-Linolenic acid 506-30-9, Arachidic acid 506-32-1, Arachidonic acid 544-63-8, Myristic acid, biological studies 6217-54-5, Docosahexaenoic acid 10417-94-4, Eicosapentaenoic acid
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(inhibition of heat-induced denaturation of albumin by nonsteroidal antiinflammatory drugs: pharmacol. implications)

IT **60-33-3**, Linoleic acid, biological studies
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(inhibition of heat-induced denaturation of albumin by nonsteroidal antiinflammatory drugs: pharmacol. implications)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 23 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:456858 HCAPLUS

DOCUMENT NUMBER: 133:94512

TITLE: Improved formulation for topical non-invasive application in vivo

INVENTOR(S): Cevc, Gregor

PATENT ASSIGNEE(S): Idea Innovative Dermale Applikationen G.m.b.H., Germany

SOURCE: PCT Int. Appl., 73 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000038653	A1	20000706	WO 1998-EP8421	19981223
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2356080	AA	20000706	CA 1998-2356080	19981223
AU 9925137	A1	20000731	AU 1999-25137	19981223
AU 770803	B2	20040304		
EP 1140021	A1	20011010	EP 1998-966846	19981223
EP 1140021	B1	20040804		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9816113	A	20011023	BR 1998-16113	19981223
JP 2002533379	T2	20021008	JP 2000-590607	19981223
EE 200100342	A	20021015	EE 2001-200100342	19981223
RU 2207844	C2	20030710	RU 2001-120008	19981223
AT 272391	E	20040815	AT 1998-966846	19981223
ES 2226203	T3	20050316	ES 1998-966846	19981223
HR 2001000309	A1	20020630	HR 2001-309	20010502
HR 20010309	B1	20050630		
NO 2001003164	A	20010822	NO 2001-3164	20010622
US 2002064524	A1	20020530	US 2001-887493	20010622
HK 1040629	A1	20050128	HK 2002-102230	20020323
PRIORITY APPLN. INFO.:			WO 1998-EP8421 A	19981223

OTHER SOURCE(S): MARPAT 133:94512

AB A formulation comprises mol. arrangements capable of penetrating pores in a barrier, owing to penetrant adaptability, despite the fact that the average diameter of the pores is smaller than the average penetrant diameter, provided that the penetrants can transport agents or cause permeation through the pores after penetrants have entered pores. The formulation comprises at least 1 consistency builder in an amount that increases the formulation to maximally 5 Nm/s so that spreading over is enabled. The formulation also contains 1 antioxidant in an amount that reduces the increase of oxidation index to <100% per 6 mo and/or at least 1 microbicide in an amount that reduces the bacterial count of 1 million germs added/g of total mass of the formulation to <100 in the case of aerobic bacteria, to <10 in the case of entero-bacteria, and to <1 in the case of Pseudomonas aeruginosa or Staphilococcus aureus, after a period of 4 days. Thus, a composition contained soybean phosphatidylcholine 347, Tween-80 623, sodium dodecyl sulfate 30, benzyl alc. 50, clobetasol 17-propionate 25 and pH 6.5 50 mM phosphate buffer 9000 mg.

IC ICM A61K009-127
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
IT Alopecia
Anemia (disease)
Antiarrhythmics
Antioxidants
Asthma
Bone, disease

Cataract
Chelating agents
Dermatomyositis
Eczema
Epilepsy
Gums and Mucilages
Lupus erythematosus
Mononucleosis
Myasthenia gravis
Nausea
Osteoarthritis
Permeation enhancers
Psoriasis
Sarcoidosis
Skin, disease
Surfactants
Thyroid gland, disease
Urticaria
(penetrating formulation for topical non-invasive application in vivo)

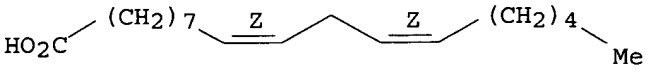
IT 50-06-6, Phenobarbital, biological studies 50-33-9, Phenylbutazone, biological studies 50-78-2, Acetylsalicylic acid 50-81-7, Ascorbic Acid, biological studies 50-99-7, Glucose, biological studies 52-67-5, Penicillamine 53-86-1, Indomethacin 54-05-7, Chloroquine 54-64-8, Thiomersal 55-56-1, Chlorhexidine 55-68-5, Phenylmercuric nitrate 56-81-5, Glycerol, biological studies 57-15-8, Chlorbutanol 59-02-9, α-Tocopherol 59-05-2, Methotrexate 59-50-7, 4-Chloro-m-cresol 60-00-4, EDTA, biological studies 61-68-7, Mefenamic acid 62-38-4, Phenylmercuric acetate 62-56-6, Thiourea, biological studies 64-17-5, Ethyl alcohol, biological studies 65-85-0, Benzoic acid, biological studies 67-63-0, Isopropyl alcohol, biological studies 67-68-5D, DMSO, alkyl derivs. 69-72-7, Salicylic Acid, biological studies 69-93-2, Uric acid, biological studies 70-18-8, Glutathione, biological studies 70-30-4, Hexachlorophene 81-24-3D, salts 81-25-4D, salts 83-44-3D, salts 83-89-6, Quinacrine 86-74-8, Carbazole 89-65-6 90-05-1, Guaiacol 90-34-6, Primaquine 94-13-3, Propylparaben 94-18-8, Benzylparaben 94-26-8, Butylparaben 97-23-4, Dichlorophene 99-50-3, Protocatechuic Acid 99-76-3, Methylparaben 100-51-6, Benzyl alcohol, biological studies 102-98-7, Phenylmercuric borate 103-90-2, Acetaminophen 107-15-3D, Ethylenediamine, derivs. 107-21-1, Ethylene glycol, biological studies 110-27-0, Isopropyl myristate 110-44-1, Sorbic acid 112-53-8, 1-Dodecanol 112-80-1, Oleic acid, biological studies 118-42-3, Hydroxychloroquine 119-13-1, δ-Tocopherol 120-47-8, Ethylparaben 121-33-5, Vanillin 121-79-9, Propyl Gallate 122-39-4, Diphenylamine, biological studies 123-03-5, Cetylpyridinium chloride 123-31-9, Hydroquinone, biological studies 128-37-0, BHT, biological studies 129-20-4, Oxyphenbutazone 137-66-6 138-14-7, Desferal 141-78-6, EtOAc, biological studies 143-19-1, Sodium oleate 143-28-2, Oleyl alcohol 148-03-8, β-Tocopherol 149-91-7, Gallic Acid, biological studies 151-41-7, Lauryl sulfate 302-95-4, Sodium deoxycholate 327-97-9, Chlorogenic acid 331-39-5, Caffeic acid 360-65-6D, salts 446-86-6, Azathioprine 475-31-0D, salts 476-66-4, Ellagic Acid 484-78-6, 3-Hydroxykynurenine 490-79-9, Gentisic acid 500-38-9, Nordihydroguaiaretic Acid 516-50-7D, salts 525-66-6, Propranolol 530-57-4, Syringic Acid 530-59-6, Sinapic acid 530-78-9, Flufenamic acid 534-61-2, IsoChlorogenic acid 538-71-6, Phenododecinium bromide 548-93-6, 3-Hydroxyanthranilic acid 616-91-1, N-Acetylcysteine 621-82-9, Cinnamic acid, biological studies 629-25-4, Sodium laurate 635-65-4, Bilirubin, biological studies **822-17-3**, Sodium linoleate 1118-68-9D, Dimethylglycine, alkyl derivs. 1135-24-6, Ferulic acid 1319-77-3, Cresol 1643-20-5,

Dodecyldimethylamine oxide 1948-33-0, tert-Butylhydroquinone 1951-25-3, Amiodarone 2002-22-4D, derivs. 2495-84-3 3650-09-7, Carnosic acid 4353-06-4 5432-30-4 5677-55-4, Ubiquinol-10 5957-80-2, Carnosol 7235-40-7, β-Carotene 7347-25-3, Sodium taurate 7616-22-0, γ-Tocopherol 7631-90-5, Sodium bisulphite 7681-57-4, Sodium metabisulfite 7747-53-7 9000-07-1, Carrageenan 9000-30-0, Guar-gum 9000-65-1, Tragacanth 9000-69-5, Pectin 9001-05-2, Catalase 9002-88-4, Polyethylene 9002-89-5, Polyvinyl alcohol 9002-92-0, Polyethylene glycol dodecyl ether 9002-96-4 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Carboxymethyl cellulose sodium salt 9004-34-6D, Cellulose, derivs., biological studies 9004-61-9, Hyaluronic Acid 9004-62-0, Hydroxyethyl cellulose 9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropylmethyl cellulose 9004-67-5, Methyl cellulose 9004-98-2, Polyethylene glycol oleyl ether 9004-99-3, Myrj 45 9005-32-7, Alginic acid 9005-64-5, Tween 20 9005-65-6, Tween 80 9012-36-6, Agarose 9012-76-4, Chitosan 9013-66-5, Glutathione peroxidase 9036-19-5, Polyethylene glycol octylphenyl ether 9043-30-5, Polyethylene glycol isotridecyl ether 9054-89-1, Superoxide dismutase 9086-85-5, Poly(hydroxypropyl) methacrylate 10540-29-1, Tamoxifen 11138-66-2, Xanthan 12041-76-8, Dichlorobenzylalcohol 15307-86-5, Diclofenac 15687-27-1, Ibuprofen 16409-34-0, Sodium glycodeoxycholate 16690-40-7 18175-45-6, Sodium elaidate 18472-51-0, Chlorhexidine gluconate 18683-91-5, Ambroxol 19767-45-4, Mesna 20283-92-5, Rosmarinic acid 20902-45-8, Penicillamine disulfide 21829-25-4, Nifedipine 22071-15-4, Ketoprofen 22204-53-1, Naproxen 22494-42-4, Diflunisal 23288-49-5, Probucol 25013-16-5, BHA 25014-41-9, Polyacrylonitrile 25249-16-5 25322-68-3, PEG 25429-38-3, Coumaric acid 25655-41-8, Povidone-iodine 26570-48-9, Polyethylene glycol-diacrylate 26746-38-3, Di-tert-butylphenol 27306-76-9, Polyethylene glycol cetyl stearyl ether 27306-79-2, Polyethylene glycol myristyl ether 29122-68-7, Atenolol 29349-22-2, Chlorobenzyl alcohol 33425-76-2 36322-90-4, Piroxicam 36413-60-2, Quinic Acid 37640-71-4, Aprindine 53188-07-1, Trolox 53584-19-3 55985-32-5, Nicardipine 59227-89-3, Azone 63675-72-9, Nisoldipine 66085-59-4, Nimodipine 68047-06-3, Hydroxytamoxifen 68555-46-4 75530-68-6, Nilvadipine 77400-65-8, Asocainol 85261-20-7, Decanoyl N-methylglucamide 87246-72-8 88306-53-0 90522-12-6 91729-95-2, Rosmaridiphenol 99716-88-8, Methallylsulfonic acid homopolymer 106392-12-5, Poloxamer 110101-67-2, U74006F 118457-14-0, Nebivolol 121869-32-7 148081-72-5, 1-O-Hexyl-2,3,5-trimethylhydroquinone
RL: MOA (Modifier or additive use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(penetrating formulation for topical non-invasive application in vivo)

IT **822-17-3**, Sodium linoleate
RL: MOA (Modifier or additive use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(penetrating formulation for topical non-invasive application in vivo)

RN 822-17-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)-, sodium salt (9CI) (CA INDEX NAME)

Double bond geometry as shown.



● Na

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 24 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:290817 HCAPLUS
DOCUMENT NUMBER: 132:326059
TITLE: Associates of macromolecules and complex aggregates for improved payload and controlled drug delivery
INVENTOR(S): Cevc, Gregor
PATENT ASSIGNEE(S): Idea Innovative Dermale Applikationen Gmbh, Germany
SOURCE: PCT Int. Appl., 88 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000024377	A1	20000504	WO 1998-EP6750	19981023
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2309633	AA	20000504	CA 1998-2309633	19981023
AU 9914350	A1	20000515	AU 1999-14350	19981023
AU 765385	B2	20030918		
EP 1039880	A1	20001004	EP 1998-958234	19981023
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9814415	A	20001010	BR 1998-14415	19981023
JP 2002528406	T2	20020903	JP 2000-577988	19981023
RU 2211027	C2	20030827	RU 2000-119757	19981023
NO 2000003287	A	20000823	NO 2000-3287	20000622
HK 1032745	A1	20050812	HK 2001-103359	20010515

PRIORITY APPLN. INFO.: WO 1998-EP6750 A 19981023

AB This invention describes the principles and procedures suitable for developing, testing, manufacturing, and using combinations of various amphipathic, if necessary modified, macromols. (such as polypeptides, proteins, etc.) or other chain mols. (such as suitable, e.g. partly hydrophobic, polynucleotides or polysaccharides) with the aggregates which comprise a mixture of polar and/or charged amphipathic mols. and form extended surfaces that can be freely suspended or supported. The methods can be utilized for the optimization of aggregates that, after association with chain mols. exerting some activity or a useful function, are suitable for the application in vitro or in vivo, e.g., in the fields of drug

delivery, diagnostics or biocatalysis. As special examples, mixts. of vesicular droplets consisting of lipids loaded (associated) with insulin, interferon, interleukin, nerve growth factor, calcitonin, and an Ig, etc., are described. Thus, ultradeformable and flexible vesicles (Transfersomes) were prepared from soybean phosphatidylcholine 874.4 and sodium cholate 125.6 mg, and pH 7.1 9 mL phosphate buffer. To this suspension (5% total lipid content) was added 0.1, 0.5, 1, 2, 3, or 4 mg/insulin/100 mg total lipid.

IC ICM A61K009-127
ICS A61K038-28

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 2, 9

IT Allergy inhibitors
Analgesics
Anesthetics
Anti-Alzheimer's agents
Anti-inflammatory agents
Antiarrhythmics
Antiarteriosclerotics
Antiasthmatics
Antibacterial agents
Antibiotics
Anticoagulants
Anticonvulsants
Antidepressants
Antidiabetic agents
Antidotes
Antiemetics
Antihistamines
Antimigraine agents
Antiparkinsonian agents
Antipsychotics
Antipyretics
Antirheumatic agents
Antiviral agents
Bacteria (Eubacteria)
Bronchodilators
Cardiotonics
Cholinergic agonists
Cholinergic antagonists
Contraceptives
Cytotoxic agents
Diuretics
Fungicides
Hemostatics
Hypnotics and Sedatives
Immunomodulators
Muscle relaxants
Narcotics
Nervous system stimulants
Neurotransmitter antagonists
Opioid antagonists
Parasiticides
Surfactants
Tranquilizers
Tuberculostatics
Vasoconstrictors
Vasodilators
Virus
Wound healing

(assocs. of macromols. and complex aggregates for improved payload and controlled drug delivery)

IT 57-10-3D, Palmitic acid, sphingosine derivative 57-11-4D, Stearic acid, sphingosine derivative **60-33-3D**, Linoleic acid, sphingosine derivative 81-24-3D, TauroCholic acid, monovalent salts 81-25-4D, Cholic acid, monovalent salts 83-44-3D, DeoxyCholic acid, monovalent salts 112-80-1D, Oleic acid, sphingosine derivative 143-07-7D, Lauric acid, sphingosine derivative 143-19-1, Sodium Oleate 151-41-7, Lauryl sulfate 302-95-4, Sodium deoxycholate 360-65-6D, GlycodeoxyCholic acid, monovalent salts 407-41-0D, derivs. 463-40-1D, Linolenic acid, sphingosine derivative 475-31-0D, GlycoCholic acid, monovalent salts 506-30-9D, Arachic acid, sphingosine derivative 506-44-5D, Linolenyl alcohol, sphingosine derivative 516-50-7D, TaurodeoxyCholic acid, monovalent salts 544-63-8D, Myristic acid, sphingosine derivative 629-25-4, Sodium laurate **822-17-3**, Sodium linoleate 1118-68-9D, N,N-Dimethylglycine, alky derivs. 1338-39-2, Arlacel 20 1643-20-5, Dodecyldimethylamine oxide 3055-98-9 3055-99-0 6284-40-8D, N-Methylglucamine, alkanoyl derivs. 7347-25-3, Sodium taurate 7747-53-7 9002-92-0, Polyethylene glycol lauryl ether 9004-10-8, Insulin, biological studies 9004-81-3, Polyethylene glycol laurate 9004-96-0, Polyethylene glycol oleate 9004-98-2, Polyethylene glycol oleyl ether 9004-99-3, Myrj 45 9005-64-5, Tween 20 9005-65-6, Tween 80 9036-19-5, Polyethylene glycol octylphenyl ether 9061-61-4, Nerve growth factor 16409-34-0, Sodium glycodeoxycholate 18175-45-6, Sodium elaidate 25322-68-3D, Polyethylene glycol, acyl ethers 27306-79-2, Polyethylene glycol myristyl ether 37449-90-4D, oleoyl derivs. 50546-45-7 51855-11-9 85261-20-7, Decanoyl N-Methylglucamide 87246-72-8

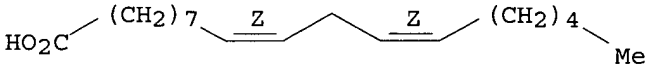
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(assocs. of macromols. and complex aggregates for improved payload and controlled drug delivery)

IT **60-33-3D**, Linoleic acid, sphingosine derivative **822-17-3**, Sodium linoleate

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(assocs. of macromols. and complex aggregates for improved payload and controlled drug delivery)

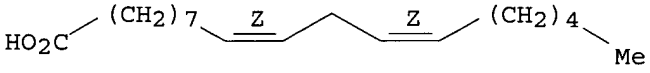
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 822-17-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)-, sodium salt (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 25 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:397930 HCAPLUS
DOCUMENT NUMBER: 136:374807
TITLE: Cosmetic or pharmaceutical composition based on lipoic acid and pyruvic acid
INVENTOR(S): Gianfranco de Paoli, Ambrosi
PATENT ASSIGNEE(S): General Topics S.R.L., Italy
SOURCE: Ital., 20 pp.
CODEN: ITXXBY
DOCUMENT TYPE: Patent
LANGUAGE: Italian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IT 1299623	B1	20000324	IT 1998-BS10	19980223
PRIORITY APPLN. INFO.:			IT 1998-BS10	19980223

AB The invention concerns a composition for cosmetic or pharmaceutical use which contains as active ingredients at least lipoic acid (both reduced form and dehydrolipoic acid) and pyruvic acid, their salts, esters, and amides and stereoisomers. Each may be present in amts. from 0.0001 to 90% weight/weight

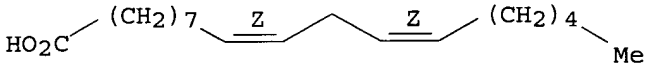
IC ICM A61K
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 62
IT Acne
Alopecia
Cosmetics
Drug delivery systems
Keloid
Keratosis
Lupus erythematosus
Molecular weight distribution
Osteoarthritis
Psoriasis
Rheumatoid arthritis
Seborrhea
Stereoisomers
(cosmetic or pharmaceutical composition based on lipoic acid and pyruvic acid)
IT 50-21-5, 2-Hydroxypropanoic acid, biological studies 50-81-7, Ascorbic acid, biological studies 52-90-4, Cysteine, biological studies 56-40-6, Glycine, biological studies 56-41-7, Alanine, biological studies 56-45-1, Serine, biological studies 56-84-8, Aspartic acid, biological studies 56-85-9, Glutamine, biological studies 56-86-0, Glutamic acid, biological studies 56-87-1, Lysine, biological studies 57-10-3, Palmitic acid, biological studies 57-11-4, Octadecanoic acid, biological studies 58-85-5, Biotin 59-30-3, Folic acid, biological studies 59-43-8, Thiamine, biological studies 59-67-6, Niacin, biological studies 60-00-4, Ethylenediaminetetraacetic acid, biological studies 60-18-4, Tyrosine, biological studies **60-33-3**, Linoleic acid, biological studies 61-90-5, Leucine, biological studies 63-68-3, Methionine, biological studies 63-91-2, Phenylalanine, biological studies 65-23-6, Pyridoxine 66-72-8, Pyridoxal 68-26-8, Retinol 69-72-7, 2-Hydroxybenzoic acid, biological studies 70-47-3, Asparagine, biological studies 71-00-1, Histidine, biological studies 72-18-4, Valine, biological studies 72-19-5, Threonine, biological

studies 73-22-3, Tryptophan, biological studies 73-32-5, Isoleucine, biological studies 74-79-3, Arginine, biological studies 79-14-1, Hydroxyethanoic acid, biological studies 79-83-4, Pantothenic acid 81-13-0, Panthenol 83-88-5, Riboflavin, biological studies 87-69-4, 2,3-Dihydroxybutanedioic acid, biological studies 98-92-0, Nicotinamide 105-45-3 107-35-7, Taurine 112-80-1, Oleic acid, biological studies 114-07-8, Erythromycin 116-31-4, Retinaldehyde 123-31-9, Hydroquinone, biological studies 127-17-3, Pyruvic acid, biological studies 127-17-3D, Pyruvic acid, derivs. 141-97-9 143-07-7, Lauric acid, biological studies 147-85-3, Proline, biological studies 150-13-0 153-18-4, Rutin 302-79-4, Retinoic acid 373-49-9, Palmitoleic acid 443-48-1, Metronidazol 463-40-1, Linolenic acid 464-92-6, Asiatic acid 473-81-4, 2,3-Dihydroxypropanoic acid 506-32-1, Arachidonic acid 526-95-4, Gluconic acid 541-50-4, biological studies 544-63-8, Myristic acid, biological studies 544-64-9, Myristoleic acid 557-59-5, Lignoceric acid 600-15-7, 2-Hydroxybutanoic acid 600-22-6 617-35-6 **693-72-1**, Vaccenic acid 1200-22-2, Lipoic acid 1200-22-2D, Lipoic acid, derivs. 3380-34-5, Triclosan 3416-24-8, Glucosamine 6556-12-3, Glucuronic acid 7235-40-7, β Carotene 7512-17-6, Acetylglucosamine 9004-61-9, Hyaluronic acid 10118-90-8, Minocycline 16830-15-2, Asiaticoside 18323-44-9, Clindamycin 18449-41-7, Madecassic acid 29204-02-2, Gadoleic acid 34540-22-2, Madecassoside 38882-78-9 55306-03-1, Sericic acid 55306-04-2, Sericoside
RL: COS (Cosmetic use); PEP (Physical, engineering or chemical process); PYP (Physical process); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(cosmetic or pharmaceutical composition based on lipoic acid and pyruvic acid)

IT **60-33-3**, Linoleic acid, biological studies **693-72-1**, Vaccenic acid
RL: COS (Cosmetic use); PEP (Physical, engineering or chemical process); PYP (Physical process); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(cosmetic or pharmaceutical composition based on lipoic acid and pyruvic acid)

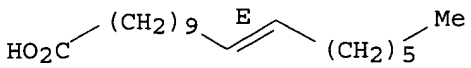
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 693-72-1 HCAPLUS
CN 11-Octadecenoic acid, (11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 26 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:33522 HCAPLUS
DOCUMENT NUMBER: 132:83669
TITLE: Topical plaster with nonsteroidal **antirheumatics** bearing acidic groups

INVENTOR(S): Mueller, Walter
PATENT ASSIGNEE(S): LTS Lohmann Therapie-Systeme G.m.b.H., Germany
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19830649	A1	20000113	DE 1998-19830649	19980709
DE 19830649	C2	20030410		
CA 2336732	AA	20000120	CA 1999-2336732	19990706
WO 2000002539	A1	20000120	WO 1999-EP4686	19990706
W: AU, BR, CA, CN, CZ, HU, IL, IN, JP, KR, MX, NZ, PL, RU, TR, US, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9949075	A1	20000201	AU 1999-49075	19990706
AU 750861	B2	20020801		
BR 9911981	A	20010327	BR 1999-11981	19990706
EP 1094796	A1	20010502	EP 1999-932827	19990706
EP 1094796	B1	20031015		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
TR 200100022	T2	20010521	TR 2001-200100022	19990706
JP 2002520270	T2	20020709	JP 2000-558799	19990706
NZ 509216	A	20020726	NZ 1999-509216	19990706
CZ 290992	B6	20021113	CZ 2001-118	19990706
RU 2212232	C2	20030920	RU 2001-102045	19990706
AT 251900	E	20031115	AT 1999-932827	19990706
ES 2212584	T3	20040716	ES 1999-932827	19990706
TW 577760	B	20040301	TW 1999-88111648	19990709
ZA 2001000172	A	20010718	ZA 2001-172	20010108
US 6676962	B1	20040113	US 2001-743124	20010309

PRIORITY APPLN. INFO.: DE 1998-19830649 A 19980709
WO 1999-EP4686 W 19990706

AB A topical plaster for local antirheumatic administration has a polyacrylate adhesive matrix bearing free CO2H groups and no OH groups, crosslinked with multivalent metal ions; the matrix contains a nonsteroidal antirheumatic drug having a free CO2H group, and a fatty acid as plasticizer and permeation enhancer. This matrix is mounted on an inert fabric backing layer which is elastic in ≥1 direction, and is covered on the opposite side by a removable, protective release liner. The matrix does not demonstrate cold flux, shows good adhesion, and allows ample release of the active agent. Thus, a combination of Durotak 387-2251 adhesive (solids content 48 weight%) 500, oleic acid 58, and ketoprofen 26 g was homogenized with 90 g 4% Al acetylacetonate solution, spread on a siliconized film to a surface d. after drying of 80 g/m2, laminated onto elastic polyester fabric, and cut into individual plasters.

IC ICM A61L015-44
ICS A61K031-19
CC 63-6 (Pharmaceuticals)
ST nonsteroidal **antirheumatic** topical plaster; ketoprofen topical plaster
IT Permeation enhancers
Plasticizers
(fatty acids; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)
IT Crosslinking agents

(multivalent metal ions; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)

IT **Antirheumatic** agents
(nonsteroidal; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)

IT Medical goods
(plasters; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)

IT Fatty acids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(plasticizers and permeation enhancers; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)

IT Adhesives
(polyacrylate; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)

IT Metals, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyvalent, crosslinking agents; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)

IT 25134-51-4, 2-Ethylhexyl acrylate/acrylic acid copolymer 35239-19-1 253797-69-2, Duro-Tak 387-2251
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(adhesive matrix; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)

IT 79-10-7D, Acrylic acid, esters, polymers with acrylic acid, crosslinked 79-10-7D, Acrylic acid, polymers with acrylate esters, crosslinked
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(adhesives; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)

IT 13963-57-0, Aluminum acetylacetonate
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(crosslinking agent; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)

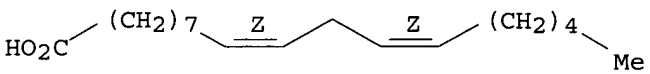
IT **60-33-3**, Linoleic acid, biological studies 112-80-1, Oleic acid, biological studies 463-40-1, Linolenic acid
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(plasticizer and permeation enhancer; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)

IT 5104-49-4, Flurbiprofen 15687-27-1, Profen 15687-27-1, Ibuprofen 22071-15-4, Ketoprofen 22204-53-1, Naproxen
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)

IT **60-33-3**, Linoleic acid, biological studies
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(plasticizer and permeation enhancer; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 27 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:446732 HCAPLUS
DOCUMENT NUMBER: 125:96100
TITLE: Monofunctional and/or polyfunctional polylysine conjugates for treatment of neural disorders, autoimmune diseases, and proliferative diseases
INVENTOR(S): Geffard, Michel
PATENT ASSIGNEE(S): Fr.
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9615810	A1	19960530	WO 1995-FR1517	19951117
W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
FR 2727117	A1	19960524	FR 1994-13861	19941118
FR 2727117	B1	19970221		
CA 2205557	AA	19960530	CA 1995-2205557	19951117
AU 9641811	A1	19960617	AU 1996-41811	19951117
EP 792167	A1	19970903	EP 1995-940329	19951117
EP 792167	B1	20010627		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10511643	T2	19981110	JP 1995-516622	19951117
AT 202487	E	20010715	AT 1995-940329	19951117
ES 2161915	T3	20011216	ES 1995-940329	19951117
PT 792167	T	20011228	PT 1995-940329	19951117
US 6114388	A	20000905	US 1997-836199	19970709
GR 3036710	T3	20011231	GR 2001-401567	20010926

PRIORITY APPLN. INFO.: FR 1994-13861 A 19941118
WO 1995-FR1517 W 19951117

AB The use of polylysine for preparing pharmaceutical compns. or combinations useful for treating neural degeneration, infectious, traumatic and toxic neuropathies, auto-immune degenerative diseases and proliferative diseases, is disclosed. Polylysine conjugates are also disclosed.

IC ICM A61K047-48

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

IT **Lupus erythematosus**
(disseminated; monofunctional and/or polyfunctional polylysine conjugates for treatment of neural disorders, autoimmune diseases, and proliferative diseases)

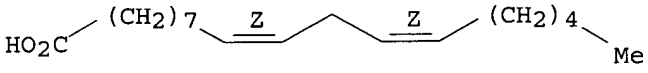
IT 50-81-7DP, Vitamin C, conjugates with polylysine 51-45-6DP, Histamine, conjugates with polylysine 51-84-3DP, Acetylcholine, conjugates with polylysine 52-90-4DP, Cysteine, conjugates with polylysine 56-12-2DP, γ-Aminobutyric acid, conjugates with polylysine 56-69-9DP, 5-Hydroxytryptophan, conjugates with polylysine 57-10-3DP, Palmitic acid, conjugates with polylysine 57-11-4DP, Stearic acid, conjugates with polylysine 57-83-0DP, Progesterone, conjugates with polylysine

57-88-5DP, Cholesterol, conjugates with polylysine 59-02-9DP, α-Tocopherol, conjugates with polylysine 59-92-7DP, conjugates with polylysine **60-33-3DP**, α-Linoleic acid, conjugates with polylysine 63-68-3DP, Methionine, conjugates with polylysine 71-00-1DP, Histidine, conjugates with polylysine 73-22-3DP, Tryptophan, conjugates with polylysine 107-35-7DP, Taurine, conjugates with polylysine 112-80-1DP, Oleic acid, conjugates with polylysine 123-99-9DP, Azelaic acid, conjugates with polylysine 143-07-7DP, Lauric acid, conjugates with polylysine 302-79-4DP, Retinoic acid, conjugates with polylysine 362-07-2DP, 2-Methoxyestradiol, conjugates with polylysine 373-49-9DP, Palmitoleic acid, conjugates with polylysine 544-63-8DP, Myristic acid, conjugates with polylysine 608-07-1DP, 5-Methoxytryptamine, conjugates with polylysine 6027-13-0DP, Homocysteine, conjugates with polylysine 25104-18-1DP, Polylysine, conjugates 38000-06-5DP, Polylysine, conjugates 68000-92-0DP, Farnesylcysteine, conjugates with polylysine
RL: SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(monofunctional and/or polyfunctional polylysine conjugates for treatment of neural disorders, autoimmune diseases, and proliferative diseases)

IT **60-33-3DP**, α-Linoleic acid, conjugates with polylysine
RL: SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(monofunctional and/or polyfunctional polylysine conjugates for treatment of neural disorders, autoimmune diseases, and proliferative diseases)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 28 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:472730 HCAPLUS
DOCUMENT NUMBER: 125:194207
TITLE: Fatty acid modified diet - is there any diet for rheumatism?
AUTHOR(S): Brunner, E.
CORPORATE SOURCE: Univ. Innsbruck, Innsbruck, A-6020, Austria
SOURCE: Ernaehrung (Vienna) (1996), 20(6), 356-358
CODEN: ERNRDC; ISSN: 0250-1554
PUBLISHER: Fachzeitschriftenverlagsgesellschaft mbH
DOCUMENT TYPE: Journal; General Review
LANGUAGE: German

AB A review with no listed refs. The importance of nutrition in the treatment of chronic polyarthritis is discussed. Decrease of the supply of arachidonic acid, inhibition of eicosanoid formation by fatty acids of fish oil, and the decrease of oxidation of arachidonic acid by antioxidants is recommended.

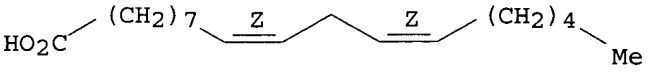
CC 18-0 (Animal Nutrition)
Section cross-reference(s): 15

IT **Arthritis**
(**rheumatoid**, Fatty acid modified diet for rheumatism)

IT **60-33-3**, Linolic acid, biological studies 506-32-1, Arachidonic

acid
RL: BPR (Biological process); BSU (Biological study, unclassified);
THU (Therapeutic use); BIOL (Biological study); PROC (Process);
USES (Uses)
(Fatty acid modified diet for rheumatism)
IT **60-33-3**, Linolic acid, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified);
THU (Therapeutic use); BIOL (Biological study); PROC (Process);
USES (Uses)
(Fatty acid modified diet for rheumatism)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 29 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:102541 HCAPLUS
DOCUMENT NUMBER: 124:156001
TITLE: Pharmaceutical compositions containing fatty acid derivatives of non-steroidal anti-inflammatory drugs
INVENTOR(S): Horrobin, David F.; Knowles, Philip
PATENT ASSIGNEE(S): Scotia Holdings PLC, UK
SOURCE: Can. Pat. Appl., 16 pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2143604	AA	19950902	CA 1995-2143604	19950228
US 5603959	A	19970218	US 1995-392628	19950222
AU 9513480	A1	19950907	AU 1995-13480	19950227
AU 703550	B2	19990325		
FI 9500910	A	19950902	FI 1995-910	19950228
NO 9500785	A	19950904	NO 1995-785	19950228
JP 07304688	A2	19951121	JP 1995-40120	19950228
ZA 9501661	A	19951208	ZA 1995-1661	19950228
EP 675103	A2	19951004	EP 1995-301315	19950301
EP 675103	A3	19970326		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CN 1117484	A	19960228	CN 1995-102755	19950301

PRIORITY APPLN. INFO.: GB 1994-3857 A 19940301

AB Pharmaceutical compns. contain non-steroidal anti-inflammatory drugs (NSAID) in the form of a compound with essential fatty acids or essential fatty acid alcs. The compns. are used for the prophylaxis and treatment of rheumatoid arthritis, osteoarthritis and related disorders; dementia, including Alzheimer's disease; or any other inflammatory or other conditions where NSAID is used. A solution of 1.14 g ibuprofen, 1.32 g z,z,z-octadeca-6,9,12-trienol, 0.61 g 4-dimethylaminopyridine, and 1.13 g dicyclohexylcarbodiimide in 20 mL dichloromethane was stirred at room temperature under N for 20 h, then it was washed with HCl, NaHCO3, and dried. After drying, the solvent was evaporated and the residue purified to obtain

z,z,z-octadeca-6,9,12-trienyl-2-methyl-4'-(2-methylpropyl)phenylacetate (I, ibuprofen derivative of γ-linolenol). Capsules contained 250, 500, and 750 mg I.

IC ICM A61K031-60
ICS A61K031-405; A61K031-20; A61K031-19; A61K047-26; A61K047-24; A61K047-12

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

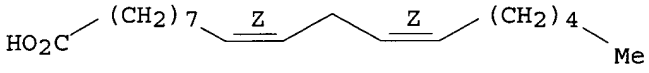
IT Inflammation inhibitors
(**antirheumatics**, pharmaceutical compns. containing fatty acid derivs. of non-steroidal anti-inflammatory drugs)

IT 53-86-1DP, Indomethacin, derivs. with fatty acids **60-33-3DP**, α-Linoleic acid, derivs. with inflammation inhibitors 69-72-7DP, Salicylic acid, derivs. with fatty acids 506-26-3DP, γ-Linolenic acid, derivs. with inflammation inhibitors 506-32-1DP, Arachidonic acid, derivs. with inflammation inhibitors 1783-84-2DP, Di-homo-γ-linolenic acid, derivs. with inflammation inhibitors 2091-25-0DP, Adrenic acid, derivs. with inflammation inhibitors 15687-27-1DP, Ibuprofen, derivs. with fatty acids 20290-75-9DP, Stearidonic acid, derivs. with inflammation inhibitors 25167-62-8DP, Docosahexaenoic acid, derivs. with inflammation inhibitors 25378-27-2DP, Eicosapentaenoic acid, derivs. with inflammation inhibitors 25448-00-4DP, Docosapentaenoic acid, derivs. with inflammation inhibitors 38194-50-2DP, Sulindac, derivs. with fatty acids 56529-85-2P 173386-76-0P 173386-77-1P 173386-78-2P
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(pharmaceutical compns. containing fatty acid derivs. of non-steroidal anti-inflammatory drugs)

IT **60-33-3DP**, α-Linoleic acid, derivs. with inflammation inhibitors
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(pharmaceutical compns. containing fatty acid derivs. of non-steroidal anti-inflammatory drugs)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 30 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:604062 HCAPLUS
DOCUMENT NUMBER: 121:204062
TITLE: Beneficial effect of eicosapentaenoic and docosahexaenoic acids in the management of systemic lupus erythematosus and its relationship to the cytokine network
AUTHOR(S): Das, U. N.
CORPORATE SOURCE: Dep. Med., Nizam's Inst. Med. Sci., Hyderabad, 500482, India

SOURCE: Prostaglandins, Leukotrienes and Essential Fatty Acids (1994), 51(3), 207-13
CODEN: PLEAEU; ISSN: 0952-3278
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Systemic lupus erythematosus (SLE) is a chronic inflammatory condition characterized by arthritis, cutaneous rash, vasculitis, and involvement of central nervous system, renal and cardiopulmonary manifestations. Abnormalities in the cytokine network is believed to be involved in the pathobiol. of this condition. The n-3 fatty acids such as eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) can suppress T-cell proliferation and the production of interleukin-1, interleukin-2, and tumor necrosis factor by these cells both in vitro and in vivo. Oral supplementation of EPA and DHA induced prolonged remission of SLE in 10 consecutive patients without any side-effects. These results suggest that n-3 fatty acids, EPA and DHA, are useful in the management of SLE and possibly, other similar collagen vascular diseases.

CC 18-3 (Animal Nutrition)

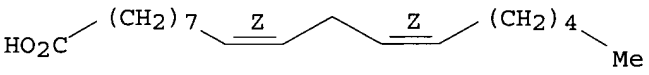
IT **Lupus erythematosus**
(beneficial effect of eicosapentaenoic and docosahexaenoic acids in the management of systemic lupus erythematosus)

IT **60-33-3**, Linoleic acid, biological studies 1783-84-2, Dihomogamma-linolenic acid 7324-41-6, 8,11,14-Eicosatrienoic acid 32839-18-2, Docosahexaenoic acid 32839-30-8, Eicosapentaenoic acid
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(beneficial effect of eicosapentaenoic and docosahexaenoic acids in the management of systemic lupus erythematosus)

IT **60-33-3**, Linoleic acid, biological studies
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(beneficial effect of eicosapentaenoic and docosahexaenoic acids in the management of systemic lupus erythematosus)

RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 31 OF 58 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 1999022039 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9805223
TITLE: Health aspects of fish and n-3 polyunsaturated fatty acids from plant and marine origin.
AUTHOR: de Deckere E A; Korver O; Verschuren P M; Katan M B
CORPORATE SOURCE: Unilever Nutrition Centre, Unilever Research Vlaardingen, The Netherlands.
SOURCE: European journal of clinical nutrition, (1998 Oct) 52 (10) 749-53. Ref: 58
Journal code: 8804070. ISSN: 0954-3007.

PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199901
ENTRY DATE: Entered STN: 19990115
Last Updated on STN: 19990115
Entered Medline: 19990107

ABSTRACT:
An expert workshop reviewed the health effects of n-3 polyunsaturated fatty acids (PUFA), and came to the following conclusions. 1. Consumption of fish may reduce the risk of coronary heart disease (CHD). People at risk for CHD are therefore advised to eat fish once a week. The n-3 PUFA in fish are probably the active agents. People who do not eat fish should consider obtaining 200 mg of very long chain n-3 PUFA daily from other sources. 2. Marine n-3 PUFA somewhat alleviate the symptoms of rheumatoid arthritis. 3. There is incomplete but growing evidence that consumption of the plant n-3 PUFA, alpha-linolenic acid, reduces the risk of CHD. An intake of 2 g/d or 1% of energy of alpha-linolenic acid appears prudent. 4. The ratio of total n-3 over n-6 PUFA (linoleic acid) is not useful for characterising foods or diets because plant and marine n-3 PUFA show different effects, and because a decrease in n-6 PUFA intake does not produce the same effects as an increase in n-3 PUFA intake. Separate recommendations for alpha-linolenic acid, marine n-3 PUFA and linoleic acid are preferred.

CONTROLLED TERM: Animals
Arthritis, Rheumatoid: DH, diet therapy
*Coronary Disease: PC, prevention & control
*Fatty Acids, Omega-3: AD, administration & dosage
*Fishes
*Health Promotion
Humans
Linoleic Acid: AD, administration & dosage
Nutrition Policy
*Plants, Edible
alpha-Linolenic Acid: AD, administration & dosage
CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 463-40-1 (alpha-Linolenic Acid)
CHEMICAL NAME: 0 (Fatty Acids, Omega-3)

L179 ANSWER 32 OF 58 MEDLINE on STN
ACCESSION NUMBER: 2005622548 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16303936
TITLE: Systemic omega-6 essential fatty acid treatment and pge1 tear content in Sjogren's syndrome patients.
AUTHOR: Aragona Pasquale; Bucolo Claudio; Spinella Rosaria; Giuffrida Sebastiano; Ferreri Giuseppe
CORPORATE SOURCE: Policlinic University Hospital, Department of Surgical Specialties, Section of Ophthalmology and Refractive Surgery, University of Messina, Messina, Italy.. paragona@unime.it
SOURCE: Investigative ophthalmology & visual science, (2005 Dec) 46 (12) 4474-9.
Journal code: 7703701. ISSN: 0146-0404.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
(CLINICAL TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 200601
ENTRY DATE: Entered STN: 20051124
Last Updated on STN: 20060112
Entered Medline: 20060111

ABSTRACT:
PURPOSE: To determine the effect of oral omega-6 essential fatty acids on PGE(1) tear content and signs and symptoms of ocular discomfort in patients with Sjogren's syndrome (SS). METHODS: This randomized, double-masked, controlled, clinical trial involved 40 patients with primary SS, divided into two groups: group 1: 20 patients (18 women, 2 men; mean age, 36.9 +/- 7.9 years [SD]) treated for 1 month with linoleic acid (LA; 112 mg), and gamma-linolenic acid (GLA; 15 mg) administered twice daily; group 2: 20 patients (19 women, 1 man; mean age, 36.3 +/- 5.5 years) treated twice daily with placebo. Patients underwent three examinations: at baseline (T0), after 1 month of treatment (T1), and 15 days after suspension of treatment (T2). At each examination, the following tests were performed: tear sampling (2 microL) from the inferior meniscus, tear break-up time (BUT), fluorescein stain of the ocular surface, and tear basal secretion. A symptom score was also obtained at each examination. PGE1 was evaluated by enzyme immunoassay. The primary efficacy variable was PGE1 content of tears. RESULTS: The tear PGE1 levels were significantly increased in group 1 at T1 versus T0 (PGE1 level: T0, 44 +/- 5.4 ng/mL; T1, 58.3 +/- 5.5 ng/mL; P < 0.01 versus T0 and group 2 at T1). At examination T2, a statistically significant reduction of PGE1 levels toward baseline was observed (45.7 +/- 5.2 ng/mL; P < 0.01 versus T1). A statistically significant reduction of symptom score was observed in group 1 at examination T1 (P < 0.01 versus T0 and group 2 score). At examination T2, the symptom score was significantly higher than T1 but remained lower than T0. The corneal fluorescein stain in group 1 showed a statistically significant improvement at examination T1 versus T0 and group 2 (P < 0.01). This improvement was also present at T2 (P < 0.02). No statistically significant differences were found for the other tests. No statistically significant changes were observed in the patients in group 2 at all examination time points. CONCLUSIONS: Omega-6 administration increases the PGE1 levels in tears of patients with SS and improves ocular surface signs and symptoms of ocular discomfort.

CONTROLLED TERM: Check Tags: Female; Male
Administration, Oral
Adult
*Alprostadil: ME, metabolism
Cornea: DE, drug effects
Cornea: ME, metabolism
Double-Blind Method
Fluorescein: DU, diagnostic use
Fluorophotometry
Humans
Immunoenzyme Techniques
***Linoleic Acid: AD, administration & dosage**
Research Support, Non-U.S. Gov't
***Sjogren's Syndrome: DT, drug therapy**
Sjogren's Syndrome: ME, metabolism
Tears: CH, chemistry
*Tears: ME, metabolism
*gamma-Linolenic Acid: AD, administration & dosage

CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 2321-07-5 (Fluorescein); 506-26-3 (gamma-Linolenic Acid); 745-65-3 (Alprostadil)

L179 ANSWER 33 OF 58 MEDLINE on STN
ACCESSION NUMBER: 2004489993 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15458276
TITLE: Effects of n-3 fatty acids on serum interleukin-6, tumour

necrosis factor-alpha and soluble tumour necrosis factor receptor p55 in active rheumatoid arthritis.

AUTHOR: Sundrarjun T; Komindr S; Archararit N; Dahlan W; Puchaiwatananon O; Angthararak S; Udomsuppayakul U; Chuncharunee S

CORPORATE SOURCE: Research Centre, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand.

SOURCE: Journal of international medical research, (2004 Sep-Oct) 32 (5) 443-54.
Journal code: 0346411. ISSN: 0300-0605.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200412

ENTRY DATE: Entered STN: 20041002
Last Updated on STN: 20041229
Entered Medline: 20041228

ABSTRACT:
We investigated the effects of a low n-6 fatty acid (FA) diet supplemented with fish oil on serum pro-inflammatory cytokine concentrations and clinical variables in patients with active rheumatoid arthritis (RA). Sixty patients were randomly assigned to receive a diet low in n-6 FAs and n-3 FAs supplement (fish oil group), a diet low in n-6 FAs and placebo (placebo group), or no special diet or intervention (control group). Serum cytokines and clinical and biochemical variables were evaluated at baseline and various timepoints. At week 18 the fish oil group had significant reductions in linoleic acid, C-reactive protein (CRP) and soluble tumour necrosis factor receptor p55 (sTNF-R p55), and significant elevations in eicosapentaenoic acid and docosahexaenoic acid compared with baseline. There were no significant differences in the clinical variables between the three groups. At week 24 there were significant reductions in interleukin-6 and TNF-alpha in the fish oil and placebo groups. Supplementation with n-3 FA and a low n-6 FA intake decreased serum sTNF-R p55 and CRP levels in patients with RA.

CONTROLLED TERM: Check Tags: Female; Male
***Arthritis, Rheumatoid**
Arthritis, Rheumatoid: BL, blood
Arthritis, Rheumatoid: DT, drug therapy
C-Reactive Protein: ME, metabolism
Dietary Fats
Dietary Supplements
Double-Blind Method
Fatty Acids, Omega-3: AD, administration & dosage
*Fatty Acids, Omega-3: ME, metabolism
*Fatty Acids, Omega-3: TU, therapeutic use
Fatty Acids, Omega-6: ME, metabolism
Fish Oils: AD, administration & dosage
Humans
*Interleukin-6: BL, blood
Linoleic Acid: BL, blood
Middle Aged
Placebos
*Receptors, Tumor Necrosis Factor, Type I: BL, blood
Research Support, Non-U.S. Gov't
Treatment Outcome
*Tumor Necrosis Factor-alpha: ME, metabolism

CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 9007-41-4 (C-Reactive Protein)

CHEMICAL NAME: 0 (Dietary Fats); 0 (Fatty Acids, Omega-3); 0 (Fatty Acids,

Omega-6); 0 (Fish Oils); 0 (Interleukin-6); 0 (Placebos); 0 (Receptors, Tumor Necrosis Factor, Type I); 0 (Tumor Necrosis Factor-alpha)

L179 ANSWER 34 OF 58 MEDLINE on STN
ACCESSION NUMBER: 2002224515 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11962753
TITLE: Effects of the antirheumatic remedy hox alpha--a new stinging nettle leaf extract--on matrix metalloproteinases in human chondrocytes in vitro.
AUTHOR: Schulze-Tanzil G; de Souza P; Behnke B; Klingelhoefer S; Scheid A; Shakibaei M
CORPORATE SOURCE: Institute of Anatomy, Freie Universitat Berlin, Germany.
SOURCE: Histology and histopathology, (2002 Apr) 17 (2) 477-85. Journal code: 8609357. ISSN: 0213-3911.
PUB. COUNTRY: Spain
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200210
ENTRY DATE: Entered STN: 20020419
Last Updated on STN: 20021023
Entered Medline: 20021022

ABSTRACT:
Inflammatory joint diseases are characterized by enhanced extracellular matrix degradation which is predominantly mediated by cytokine-stimulated upregulation of matrix metalloproteinase (MMP) expression. Besides tumour necrosis factor-alpha (TNF-alpha), Interleukin-1beta (IL-1beta) produced by articular chondrocytes and synovial macrophages, is the most important cytokine stimulating MMP expression under inflammatory conditions. Blockade of these two cytokines and their downstream effectors are suitable molecular targets of antirheumatic therapy. Hox alpha is a novel stinging nettle (Urtica dioica/Urtica urens) leaf extract used for treatment of rheumatic diseases. The aim of the present study was to clarify the effects of Hox alpha and the monosubstance 13-HOTrE (13-Hydroxyoctadecatrienic acid) on the expression of matrix metalloproteinase-1, -3 and -9 proteins (MMP-1, -3, -9). Human chondrocytes were cultured on collagen type-II-coated petri dishes, exposed to IL-1beta and treated with or without Hox alpha and 13-HOTrE. A close analysis by immunofluorescence microscopy and western blot analysis showed that Hox alpha and 13-HOTrE significantly suppressed IL-1beta-induced expression of matrix metalloproteinase-1, -3 and -9 proteins on the chondrocytes in vitro. The potential of Hox alpha and 13-HOTrE to suppress the expression of matrix metalloproteinases may explain the clinical efficacy of stinging nettle leaf extracts in treatment of rheumatoid arthritis. These results suggest that the monosubstance 13-HOTrE is one of the more active antiinflammatory substances in Hox alpha and that Hox alpha may be a promising remedy for therapy of inflammatory joint diseases.

CONTROLLED TERM:
*Anti-Inflammatory Agents, Non-Steroidal: PD, pharmacology
Arthritis, Rheumatoid
Cartilage, Articular: CY, cytology
Cells, Cultured
Chondrocytes: CY, cytology
Chondrocytes: DE, drug effects
*Chondrocytes: EN, enzymology
*Gelatinase B: BI, biosynthesis
Humans
Interleukin-1: PD, pharmacology
*Interstitial Collagenase: BI, biosynthesis
***Linoleic Acids: PD, pharmacology**
Plant Extracts: PD, pharmacology

Plant Leaves
Research Support, Non-U.S. Gov't
Rheumatic Diseases
*Stromelysin 1: BI, biosynthesis
*Urtica dioica

CHEMICAL NAME: 0 (13-hydroxyoctadecatrienic acid); 0 (Anti-Inflammatory Agents, Non-Steroidal); 0 (Interleukin-1); 0 (Linoleic Acids); 0 (Plant Extracts); EC 3.4.24.17 (Stromelysin 1); EC 3.4.24.35 (Gelatinase B); EC 3.4.24.7 (Interstitial Collagenase)

L179 ANSWER 35 OF 58 MEDLINE on STN
ACCESSION NUMBER: 2002028186 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11137570
TITLE: Bioactive fatty acids: role in bone biology and bone cell function.
AUTHOR: Watkins B A; Lippman H E; Le Bouteiller L; Li Y; Seifert M F
CORPORATE SOURCE: Department of Food Science, Lipid Chemistry and Molecular Biology Laboratory, Purdue University, 47907, West Lafayette, IN, USA.
SOURCE: Progress in lipid research, (2001 Jan-Mar) 40 (1-2) 125-48. Ref: 230
Journal code: 7900832. ISSN: 0163-7827.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200112
ENTRY DATE: Entered STN: 20020121
Last Updated on STN: 20020121
Entered Medline: 20011204

ABSTRACT:
Bone is a unique tissue providing support, movement, and mineral balance for the body. Bone growth is achieved in the young by a process called modeling, and maintained during adulthood by a process termed remodeling. Three types of cells are responsible for the formation of cartilage and bone; the chondrocyte, osteoblast, and osteoclast. These cells are under the influence of a plethora of regulatory molecules, which govern their action to provide an individual optimal bone mass. Interruption of this homeostatic machinery, especially in the elderly, often results in a loss of bone mass (osteoporosis) or cartilage damage (rheumatoid arthritis). Many pharmacological agents have been made available in an effort to prevent or alleviate these pathologies, however, one vector often overlooked is the diet. This review focuses on the relationship between dietary polyunsaturated fatty acids and bone biology, both in vivo and in vitro.

CONTROLLED TERM: Adult
Aged
Arthritis, Rheumatoid: ME, metabolism
*Bone Development
*Bone Remodeling: PH, physiology
*Bone and Bones: ME, metabolism
Chondrocytes: ME, metabolism
Cytokines: PH, physiology
*Diet
Fatty Acids, Omega-3: PH, physiology
*Fatty Acids, Unsaturated: PH, physiology
Humans
Linoleic Acids: PH, physiology

Middle Aged
Osteoblasts: ME, metabolism
Osteoclasts: ME, metabolism
Osteoporosis: ME, metabolism
CHEMICAL NAME: 0 (Cytokines); 0 (Fatty Acids, Omega-3); 0 (Fatty Acids, Unsaturated); 0 (Linoleic Acids)

L179 ANSWER 36 OF 58 MEDLINE on STN
ACCESSION NUMBER: 94082524 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8259718
TITLE: [Nutrition as adjuvant therapy in chronic polyarthritis]. Ernahrung als adjuvante Therapie bei chronischer Polyarthritis.
AUTHOR: Adam O
CORPORATE SOURCE: Rheuma-Einheit der Ludwig-Maximilians-Universitat, Staatliche Orthopadische Klinik, Munchen.
SOURCE: Zeitschrift fur Rheumatologie, (1993 Sep-Oct) 52 (5) 275-80.
Journal code: 0414162. ISSN: 0340-1855.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: German
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199401
ENTRY DATE: Entered STN: 19940203
Last Updated on STN: 19970203
Entered Medline: 19940119

ABSTRACT:
In the literature many casual observations report an arthritogenic effect of individual nutrients. The discovery of eicosanoids derived from arachidonic acid (AA) as most relevant mediators of joint inflammation allowed to elaborate the basis for a dietary therapy of rheumatoid arthritis. With an average intake of 18 g/d linoleic acid in western societies, linoleic acid is not converted to AA, and plasma levels of AA depend on its dietary intake with meat or meat products. The amount of AA ingested with the diet correlates with the formation of proinflammatory eicosanoids. Additionally, AA levels can be lowered by the ingestion of fish oil fatty acids. In our experiment, we aimed to combine the effect of low AA intake with the known anti-inflammatory effect of fish oil fatty acids. Our results demonstrate that vegetarians have lower AA percentages in erythrocyte lipids compared to the control group. The lower AA levels in plasma lipids coincided with higher percentages of fish oil fatty acids after supplementation, resulting in lower formation of mediators of inflammation. Moreover, the vegetarian group experienced a more pronounced decrease of AA in erythrocyte lipids after supplementation with fish oil fatty acids. These effects are supposed to contribute to the more favorable clinical course and laboratory findings in patients with rheumatoid arthritis on a vegetarian diet.

CONTROLLED TERM: Arachidonic Acid: AD, administration & dosage
Arachidonic Acid: PH, physiology
***Arthritis, Rheumatoid: DH, diet therapy**
Arthritis, Rheumatoid: ET, etiology
Arthritis, Rheumatoid: PP, physiopathology
Capsules
Diet, Vegetarian
Double-Blind Method
Eicosanoids: AD, administration & dosage
Eicosanoids: PH, physiology
English Abstract

*Fish Oils: AD, administration & dosage
Humans
Linoleic Acids: AD, administration & dosage
Liver: PP, physiopathology
Meat
Range of Motion, Articular: PH, physiology
CAS REGISTRY NO.: 506-32-1 (Arachidonic Acid)
CHEMICAL NAME: 0 (Capsules); 0 (Eicosanoids); 0 (Fish Oils); 0 (Linoleic Acids)

L179 ANSWER 37 OF 58 MEDLINE on STN
ACCESSION NUMBER: 94185748 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8137899
TITLE: Effects of lipid peroxide on production of matrix metalloproteinase 1 (tissue collagenase) and 3 (stromelysin) and tissue inhibitor metalloproteinase 1 by human rheumatoid synovial fibroblasts.
AUTHOR: Hiraoka K; Sasaguri Y; Komiya S; Zenmyo M; Inoue A; Morimatsu M
CORPORATE SOURCE: Department of Pathology, Kurume University School of Medicine, Japan.
SOURCE: Experimental and molecular pathology, (1993 Dec) 59 (3) 169-76.
Journal code: 0370711. ISSN: 0014-4800.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199404
ENTRY DATE: Entered STN: 19940509
Last Updated on STN: 20000303
Entered Medline: 19940425

ABSTRACT:
The effects of linoleic acid hydroperoxide on the production of matrix metalloproteinases (MMPs) including MMP-1 (tissue collagenase), -2 ("type IV collagenase"), and -3 (stromelysin) and of tissue inhibitor of metalloproteinase 1 (TIMP-1), as well as DNA synthesis were investigated in rheumatoid synovial fibroblasts. Our results demonstrated that the levels of proMMP-1 and -3 and TIMP-1 were extremely elevated when 0.5-2.0 nmole/ml of linoleic acid hydroperoxide was added to cultures of rheumatoid synovial fibroblasts. DNA synthesis, however, was inhibited by linoleic acid hydroperoxide. These results indicate that lipid peroxide causes the disruption of extracellular matrix macromolecules and the inhibition of cell repair in synovial tissue. Therefore, they also suggest that an elevated level of oxygen free radical and/or lipid peroxides in synovial fluid may play an important role in the process of rheumatoid arthritis, resulting in the disruption of the joint.

CONTROLLED TERM: **Arthritis, Rheumatoid: EN, enzymology**
***Arthritis, Rheumatoid: ME, metabolism**
Blotting, Western
Cell Division: PH, physiology
Cells, Cultured
*Collagenases: BI, biosynthesis
DNA: BI, biosynthesis
Electrophoresis, Polyacrylamide Gel
Fibroblasts: EN, enzymology
Fibroblasts: ME, metabolism
Fluorescent Antibody Technique
*Glycoproteins: BI, biosynthesis
Humans

Interstitial Collagenase
***Linoleic Acids: PH, physiology**
*Lipid Peroxides: PH, physiology
*Metalloendopeptidases: BI, biosynthesis
Stromelysin 1
Synovial Membrane: CY, cytology
Synovial Membrane: EN, enzymology
*Synovial Membrane: ME, metabolism
Tissue Inhibitor of Metalloproteinases
CAS REGISTRY NO.: 25657-09-4 (linoleic acid hydroperoxide); 9007-49-2 (DNA)
CHEMICAL NAME: 0 (Glycoproteins); 0 (Linoleic Acids); 0 (Lipid Peroxides); 0 (Tissue Inhibitor of Metalloproteinases); EC 3.4.24 (Metalloendopeptidases); EC 3.4.24.- (Collagenases); EC 3.4.24.17 (Stromelysin 1); EC 3.4.24.7 (Interstitial Collagenase)

L179 ANSWER 38 OF 58 MEDLINE on STN
ACCESSION NUMBER: 90279444 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1972260
TITLE: Effect of dietary alpha-linolenate/linoleate balance on crescent type-anti-glomerular basement membrane nephritis in rats.
AUTHOR: Watanabe S; Suzuki E; Kojima R; Suzuki Y; Okuyama H
CORPORATE SOURCE: Department of Biological Chemistry, Faculty of Pharmaceutical Sciences, Nagoya City University, Japan.
SOURCE: Lipids, (1990 May) 25 (5) 267-72.
Journal code: 0060450. ISSN: 0024-4201.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199007
ENTRY DATE: Entered STN: 19900824
Last Updated on STN: 19980206
Entered Medline: 19900717

ABSTRACT:
Rats were fed diets with three different ratios of alpha-linolenate (18:3 n-3) and linoleate (18:2 n-6), and then crescentic-type anti-glomerular basement membrane (GBM) nephritis was induced. The urinary protein levels and the plasma urea nitrogen levels were significantly higher, and histological abnormalities of glomeruli were seen more frequently in the high-alpha-linolenate group than in the high-linoleate group. The differences in dietary alpha-linolenate/linoleate balances were reflected in the proportions of arachidonate and eicosapentaenoate in glomerular phospholipids. Our results indicate that dietary enrichment with alpha-linolenate causes unfavorable effects in this anti-GBM nephritis model.

CONTROLLED TERM: Check Tags: Comparative Study; Male
Animals
Basement Membrane: IM, immunology
Basement Membrane: ME, metabolism
Blood Urea Nitrogen
Dietary Fats, Unsaturated: PD, pharmacology
Glomerulonephritis, Membranous: BL, blood
***Glomerulonephritis, Membranous: ME, metabolism**
Glomerulonephritis, Membranous: UR, urine
Kidney Glomerulus: IM, immunology
Kidney Glomerulus: ME, metabolism
Kidney Glomerulus: UL, ultrastructure
Linoleic Acid
***Linoleic Acids: PD, pharmacology**

*Linolenic Acids: PD, pharmacology
Rats
Rats, Inbred Strains
alpha-Linolenic Acid
CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 463-40-1 (alpha-Linolenic Acid)
CHEMICAL NAME: 0 (Dietary Fats, Unsaturated); 0 (Linoleic Acids); 0 (Linolenic Acids)

L179 ANSWER 39 OF 58 MEDLINE on STN
ACCESSION NUMBER: 86260003 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3014561
TITLE: Protective effect of polyunsaturated fatty acid supplementation in apoferritin induced murine glomerulonephritis.
AUTHOR: Kher V; Barcelli U; Weiss M; Gallon L; Pajel P; Laskarzewski P; Pollak V E
CONTRACT NUMBER: 3-MO1-RR 00068-21S2 (NCRR)
AM 17196 (NIADDK)
AM 34489 (NIADDK)
SOURCE: Prostaglandins, leukotrienes, and medicine, (1986 Jun) 22 (3) 323-34.
Journal code: 8206868. ISSN: 0262-1746.
PUB. COUNTRY: SCOTLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198608
ENTRY DATE: Entered STN: 19900321
Last Updated on STN: 19980206
Entered Medline: 19860808

ABSTRACT:
The effects of increasing two dietary polyunsaturated fatty acids, eicosapentaenoic and linoleic, on the glomerulonephritis induced by repeated injections of apoferritin in the mouse were studied. Urinary protein excretion was measured serially; serum creatinine, aortic and renal production of eicosanoids and kidney histology were measured at sacrifice at 8 weeks. Both high EPA and LA feedings were associated with lesser proteinuria, normalization of renal function and profound changes in the tissue production of prostaglandin and thromboxane, which may explain their protective effect in this model of renal disease.

CONTROLLED TERM: Check Tags: Male
Animals
Apoferritin
Creatinine: BL, blood
*Dietary Fats: PD, pharmacology
Eicosapentaenoic Acid: PD, pharmacology
Fatty Acids, Unsaturated: AD, administration & dosage
*Fatty Acids, Unsaturated: PD, pharmacology
Glomerulonephritis: CI, chemically induced
Glomerulonephritis: PA, pathology
***Glomerulonephritis: PC, prevention & control**
Immune Complex Diseases: CI, chemically induced
***Immune Complex Diseases: PC, prevention & control**
Linoleic Acid
Linoleic Acids: PD, pharmacology
Mice
Prostaglandins: BI, biosynthesis
Proteinuria: PC, prevention & control
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.

Thromboxane B2: BI, biosynthesis
CAS REGISTRY NO.: 1553-41-9 (Eicosapentaenoic Acid); 2197-37-7 (Linoleic Acid); 54397-85-2 (Thromboxane B2); 60-27-5 (Creatinine); 9013-31-4 (Apoferritin)
CHEMICAL NAME: 0 (Dietary Fats); 0 (Fatty Acids, Unsaturated); 0 (Linoleic Acids); 0 (Prostaglandins)

L179 ANSWER 40 OF 58 MEDLINE on STN
ACCESSION NUMBER: 86190659 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2870830
TITLE: Uptake of fatty acids and their mobilization from phospholipids in cultured monocyte-macrophages from rheumatoid arthritis patients.
AUTHOR: Bomalaski J S; Goldstein C S; Dailey A T; Douglas S D; Zurier R B
CONTRACT NUMBER: AM T32-07442 (NIADDK)
AM-28560 (NIADDK)
SOURCE: Clinical immunology and immunopathology, (1986 May) 39 (2) 198-212.
Journal code: 0356637. ISSN: 0090-1229.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198606
ENTRY DATE: Entered STN: 19900321
Last Updated on STN: 19980206
Entered Medline: 19860606

ABSTRACT:
Prostaglandins (PG) and related eicosanoids which derive from essential fatty acids are important mediators and modulators of inflammation. Macrophages (M phi), which derive from peripheral blood monocytes (PBM), are prominent cells in the synovium of patients with rheumatoid arthritis (RA), and are a major source of synovial PGE2. In addition, fresh and cultured PBM from RA patients produce more PG than normal control cells. When allowed to mature in culture PBM exhibit many characteristics of macrophages (M-M phi). We examined uptake by M-M phi of eicosanoid precursor fatty acids (FA), their incorporation into cellular phospholipid (PL), and mobilization of FA after cell stimulation. Cultured M-M phi from treated and untreated RA patients (RA M-M phi) took up significantly more linoleic acid (LA), dihomogammalinolenic acid (DHLA) and arachidonic acid (AA) than M-M phi from normal volunteers (N M-M phi). The enhanced uptake of FA observed in 12-day cultures of RA M-M phi was similar to uptake seen in normal human peritoneal macrophages (PM phi). After uptake FA were incorporated mainly into phosphatidylcholine (PC). M-M phi from untreated RA patients incorporated a smaller proportion of [14C]LA into PC (37.0 +/- 12.7% of total PL label) than normal cells (86.0 +/- 4.2%), and a greater proportion of [3H]AA into PC (57.1 +/- 7.1%) than normals (23.9 +/- 6.9%). Stimulation of M-M phi with calcium ionophore A23187 resulted in significantly greater hydrolysis of LA and AA from PC in RA M-M phi from both treated and untreated patients than from PC in N M-M phi. The data indicate that M-M phi from RA patients mature more rapidly in vitro than M-M phi from controls as uptake of FA by RA M-M phi increases with duration of culture and by 12 days in culture equals uptake by normal human peritoneal M phi. Also, RA M-M phi exhibit differences from N M-M phi in uptake, PL distribution, and hydrolysis of eicosanoid precursor FA. Such changes in FA metabolism might influence cell function and inflammatory responses.
CONTROLLED TERM: 8,11,14-Eicosatrienoic Acid: ME, metabolism
Arachidonic Acid
Arachidonic Acids: ME, metabolism
***Arthritis, Rheumatoid: ME, metabolism**

Calcimycin: PD, pharmacology
Cell Differentiation
Cells, Cultured
*Fatty Acids: ME, metabolism
Humans
Kinetics
Linoleic Acid
Linoleic Acids: ME, metabolism
Linolenic Acids: ME, metabolism
*Macrophages: ME, metabolism
Membrane Lipids: ME, metabolism
*Monocytes: ME, metabolism
Palmitic Acid
Palmitic Acids: ME, metabolism
*Phospholipids: ME, metabolism
Prostaglandins: ME, metabolism
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.
alpha-Linolenic Acid

CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 463-40-1 (alpha-Linolenic Acid); 506-32-1 (Arachidonic Acid); 52665-69-7 (Calcimycin); 57-10-3 (Palmitic Acid); 7324-41-6 (8,11,14-Eicosatrienoic Acid)

CHEMICAL NAME: 0 (Arachidonic Acids); 0 (Fatty Acids); 0 (Linoleic Acids); 0 (Linolenic Acids); 0 (Membrane Lipids); 0 (Palmitic Acids); 0 (Phospholipids); 0 (Prostaglandins)

L179 ANSWER 41 OF 58 MEDLINE on STN
ACCESSION NUMBER: 85138149 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3156280
TITLE: Effects of dietary linoleic acid enrichment on induction of immune complex nephritis in mice.
AUTHOR: Kher V; Barcelli U; Weiss M; Pollak V E
CONTRACT NUMBER: AM 17196 (NIADDK)
RR 00068-18-52 (NCRR)
SOURCE: Nephron, (1985) 39 (3) 261-6.
Journal code: 0331777. ISSN: 0028-2766.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198504
ENTRY DATE: Entered STN: 19900320
Last Updated on STN: 19980206
Entered Medline: 19850410

ABSTRACT:
In pharmacologic doses E series prostaglandins attenuate the development of immune complex nephritis. We studied the effect of the dietary prostaglandin precursor linoleic acid on murine apoferritin-induced immune complex glomerulonephritis. High, normal, or low linoleic acid diets were fed to mice for 4 weeks prior to and during the intraperitoneal apoferritin administration. A high linoleic acid diet feeding was associated with less proteinuria, less renal histologic damage, and prevented a rise in serum creatinine. We conclude that linoleic acid has a protective effect on the development of murine apoferritin-induced immune complex nephritis.

CONTROLLED TERM: Check Tags: Male
Animals
Apoferritin
Diet
Glomerulonephritis: ET, etiology

Glomerulonephritis: PA, pathology
***Glomerulonephritis: PC, prevention & control**
Immune Complex Diseases: ET, etiology
Immune Complex Diseases: PA, pathology
***Immune Complex Diseases: PC, prevention & control**
Kidney Glomerulus: PA, pathology
Kidney Tubules: PA, pathology
Linoleic Acid
Linoleic Acids: AD, administration & dosage
***Linoleic Acids: TU, therapeutic use**
Mice
Prostaglandins E: ME, metabolism
Proteinuria: PC, prevention & control
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.
CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 9013-31-4 (Apoferritin)
CHEMICAL NAME: 0 (Linoleic Acids); 0 (Prostaglandins E)

L179 ANSWER 42 OF 58 MEDLINE on STN
ACCESSION NUMBER: 85181775 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3886567
TITLE: Linoleic acid treatment in inflammatory arthritis.
AUTHOR: Jantti J; Isomaki H; Laitinen O; Nikkari T; Seppala E; Vapaatalo H
SOURCE: International journal of clinical pharmacology, therapy, and toxicology, (1985 Feb) 23 (2) 89-91.
Journal code: 8003415. ISSN: 0174-4879.
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of
DOCUMENT TYPE: (CLINICAL TRIAL)
(CONTROLLED CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198505
ENTRY DATE: Entered STN: 19900320
Last Updated on STN: 19980206
Entered Medline: 19850528

ABSTRACT:
Ten patients with chronic rheumatic diseases were treated either with sunflower oil (linoleic acid 66%; n = 6) or with olive oil (linoleic acid 4%; n = 4) for 21 days. Sunflower oil but not olive oil increased the serum concentrations of linoleic acid in all fractions studied. In cholesteryl esters, both arachidonic acid and dihomo-gamma-linolenic acid concentrations were slightly diminished. The changes in all these fatty acids were already seen on the first days of treatment. Plasma arachidonic acid metabolites showed no uniform changes during the treatment. Excretions of the main metabolite of prostacyclin (6-keto-PGF1 alpha) and thromboxane B2 into urine were slightly increased in most patients on sunflower oil. No marked improvement was seen in the clinical or conventional laboratory parameters in either treatment.

CONTROLLED TERM: Check Tags: Comparative Study; Female; Male
Arachidonic Acids: ME, metabolism
***Arthritis, Rheumatoid: DT, drug therapy**
Clinical Trials
Fatty Acids: BL, blood
Humans
Linoleic Acid
Linoleic Acids: BL, blood
***Linoleic Acids: TU, therapeutic use**
Research Support, Non-U.S. Gov't
Time Factors

CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid)
CHEMICAL NAME: 0 (Arachidonic Acids); 0 (Fatty Acids); 0 (Linoleic Acids)

L179 ANSWER 43 OF 58 MEDLINE on STN
ACCESSION NUMBER: 83178476 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6340697
TITLE: Diet in the treatment of rheumatoid arthritis.
AUTHOR: Ziff M
SOURCE: Arthritis and rheumatism, (1983 Apr) 26 (4) 457-61. Ref: 28
Journal code: 0370605. ISSN: 0004-3591.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 198305
ENTRY DATE: Entered STN: 19900318
Last Updated on STN: 19900318
Entered Medline: 19830505
CONTROLLED TERM: Animals
***Arthritis, Rheumatoid: DH, diet therapy**
Autoimmune Diseases: DH, diet therapy
Fatty Acids, Unsaturated: ME, metabolism
Humans
Linoleic Acids: ME, metabolism
Lymphocytes: ME, metabolism
Macrophages: ME, metabolism
Mice
Mice, Inbred Strains
Prostaglandins E: ME, metabolism
Research Support, U.S. Gov't, P.H.S.
CHEMICAL NAME: 0 (Fatty Acids, Unsaturated); 0 (Linoleic Acids); 0 (Prostaglandins E)

L179 ANSWER 44 OF 58 MEDLINE on STN
ACCESSION NUMBER: 82216621 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7086783
TITLE: Prostaglandin precursors in rheumatoid arthritis.
AUTHOR: Haataja M; Nieminen A L; Makisara P; Kalliomaki J L
SOURCE: Journal of rheumatology, (1982 Jan-Feb) 9 (1) 91-3.
Journal code: 7501984. ISSN: 0315-162X.
PUB. COUNTRY: Canada
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198208
ENTRY DATE: Entered STN: 19900317
Last Updated on STN: 19980206
Entered Medline: 19820814
CONTROLLED TERM: Check Tags: Female; Male
Adolescent
Adult
Arachidonic Acids: BL, blood
***Arthritis, Rheumatoid: BL, blood**
Fatty Acids: BL, blood
Humans
Linoleic Acid
Linoleic Acids: BL, blood
Linolenic Acids: BL, blood

Middle Aged
Obesity
Pain
*Prostaglandins: BI, biosynthesis
CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid)
CHEMICAL NAME: 0 (Arachidonic Acids); 0 (Fatty Acids); 0 (Linoleic Acids); 0 (Linolenic Acids); 0 (Prostaglandins)

L179 ANSWER 45 OF 58 EMBASE
ACCESSION NUMBER: 2005237797 EMBASE
TITLE: Herbal medications commonly used in the practice of rheumatology: Mechanisms of action, efficacy, and side effects.
AUTHOR: Setty A.R.; Sigal L.H.
CORPORATE SOURCE: Dr. L.H. Sigal, J.3100 Pharmaceutical Research Institute, Bristol-Myers Squibb, P.O. Box 4000, Princeton, NJ 08543-4000, United States. leonard.sigal@bms.com
SOURCE: Seminars in Arthritis and Rheumatism, (2005) Vol. 34, No. 6, pp. 773-784.
Refs: 86
ISSN: 0049-0172 CODEN: SAHRBF
PUBLISHER IDENT.: S 0049-0172(05)00012-0
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 031 Arthritis and Rheumatism
036 Health Policy, Economics and Management
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20050630
Last Updated on STN: 20050630
ABSTRACT: OBJECTIVE: To review the literature on herbal preparations commonly utilized in the treatment of rheumatic indications. METHODS: Search of MEDLINE (PubMed) was performed using both the scientific and the common names of herbs. Relevant articles in English were collected from PubMed and reviewed. RESULTS: This review summarizes the efficacy and toxicities of herbal remedies used in complementary and alternative medical (CAM) therapies for rheumatologic conditions, by elucidating the immune pathways through which these preparations have antiinflammatory and/or immunomodulatory activity and providing a scientific basis for their efficacy. Gammalinolenic acid suppresses inflammation by acting as a competitive inhibitor of prostaglandin E2 and leukotrienes (LTs) and by reducing the auto-induction of interleukin1α (IL-1α)-induced pro-IL-1β gene expression. It appears to be efficacious in rheumatoid arthritis (RA) but not for Sjogren's disease. The antiinflammatory actions of Harpagophytum procumbens is due to its action on eicosanoid biosynthesis and it may have a role in treating low back pain. While in vitro experiments with Tanacetum parthenium found inhibition of the expression of intercellular adhesion molecule-1, tumor necrosis factor alpha (TNF-α), interferon-γ, IκB kinase, and a decrease in T-cell adhesion, to date human studies have not proven it useful in the treatment of RA. Current experience with Tripterygium wilfordii Hook F, Uncaria tomentosa, finds them to be efficacious in the treatment of RA, while Urtica diocia and willow bark extract are effective for osteoarthritis. T. wilfordii Hook F extract inhibits the production of cytokines and other mediators from mononuclear phagocytes by blocking the up-regulation of a number of proinflammatory genes, including TNF-α, cyclooxygenase 2 (COX-2), interferon-γ, IL-2, prostaglandin, and iNOS. Uncaria tomentosa and Urtica diocia both decrease the production of TNF-α. At present there

are no human studies on Ocimum spp. in rheumatic diseases. The fixed oil appears to have antihistaminic, antiserotonin, and antiprostaglandin activity. Zingiber officinale inhibits TNF-α, prostaglandin, and leukotriene synthesis and at present has limited efficacy in the treatment of osteoarthritis. CONCLUSIONS: Investigation of the mechanism and potential uses of CAM therapies is still in its infancy and many studies done to date are scientifically flawed. Further systematic and scientific inquiry into this topic is necessary to validate or refute the clinical claims made for CAM therapies. An understanding of the mechanism of action of CAM therapies allows physicians to counsel effectively on their proper and improper use, prevent adverse drug-drug interactions, and anticipate or appreciate toxicities. RELEVANCE: The use of CAM therapies is widespread among patients, including those with rheumatic diseases. Herbal medications are often utilized with little to no physician guidance or knowledge. An appreciation of this information will help physicians to counsel patients concerning the utility and toxicities of CAM therapies. An understanding and elucidation of the mechanisms by which CAM therapies may be efficacious can be instrumental in discovering new molecular targets in the treatment of diseases.

CONTROLLED TERM: Medical Descriptors:
*rheumatic disease: DM, disease management
*rheumatic disease: DT, drug therapy
drug mechanism
drug safety
drug activity
inflammation
gene expression
rheumatoid arthritis: DT, drug therapy
Sjoegren syndrome: DT, drug therapy
biosynthesis
low back pain: DT, drug therapy
T lymphocyte
cell adhesion
Tanacetum parthenium
Urtica diocia
harpagophytum procumbens
Harpagophytum
tripterygium wilfordii
Tripterygium
willow
osteoarthritis: DT, drug therapy
Uncaria tomentosa
basil
ginger
headache: DT, drug therapy
headache: PC, prevention
headache: SI, side effect
constipation: SI, side effect
flatulence: SI, side effect
epilepsy: SI, side effect
disease exacerbation: SI, side effect
seizure: SI, side effect
feces
weight gain
weight reduction
uterus contraction
side effect: SI, side effect
belching: SI, side effect
drug induced disease: SI, side effect

pain: DT, drug therapy
digestive system function disorder: SI, side effect
neuralgia: DT, drug therapy
fever: DT, drug therapy
migraine: DT, drug therapy
migraine: PC, prevention
systemic lupus erythematosus: DT, drug therapy
ankylosing spondylitis: DT, drug therapy
psoriasis: DT, drug therapy
kidney disease: DT, drug therapy
kidney disease: SI, side effect
chronic fatigue syndrome: DT, drug therapy
bursitis: DT, drug therapy
alopecia: DT, drug therapy
eczema: DT, drug therapy
gout: DT, drug therapy
urticaria: DT, drug therapy
allergic rhinitis: DT, drug therapy
antiemetic activity
motion sickness: DT, drug therapy
dizziness: DT, drug therapy
intoxication: DT, drug therapy
intoxication: PC, prevention
gastrointestinal disease: SI, side effect
mouth ulcer: SI, side effect
nausea and vomiting: SI, side effect
diarrhea: SI, side effect
common cold: DT, drug therapy
common cold: PC, prevention
stomach disease: SI, side effect
dyspepsia: SI, side effect
nausea: SI, side effect
nephrotoxicity: SI, side effect
xerostomia: SI, side effect
gastritis: SI, side effect
hypertension: SI, side effect
spotting: SI, side effect
amenorrhea: SI, side effect
osteoporosis: SI, side effect
chronic pain: DT, drug therapy
Reye syndrome: SI, side effect
peptic ulcer: SI, side effect
diabetes mellitus: SI, side effect
liver disease: SI, side effect
leukopenia: SI, side effect
thrombocytopenia: SI, side effect
hair loss: SI, side effect
human
nonhuman
clinical trial
review
priority journal
Drug Descriptors:
*herbaceous agent: AE, adverse drug reaction
*herbaceous agent: CT, clinical trial
*herbaceous agent: CM, drug comparison
*herbaceous agent: DT, drug therapy
*herbaceous agent: IP, intraperitoneal drug administration
*herbaceous agent: PO, oral drug administration
*herbaceous agent: PE, pharmacoeconomics

*herbaceous agent: PD, pharmacology
gamma linolenic acid: AE, adverse drug reaction
gamma linolenic acid: DO, drug dose
gamma linolenic acid: DT, drug therapy
gamma linolenic acid: PD, pharmacology
prostaglandin E2: EC, endogenous compound
leukotriene: EC, endogenous compound
interleukin 1alpha: EC, endogenous compound
interleukin 1beta: EC, endogenous compound
icosanoid: EC, endogenous compound
cell adhesion molecule: EC, endogenous compound
tumor necrosis factor alpha: EC, endogenous compound
gamma interferon: EC, endogenous compound
I kappa B: EC, endogenous compound
cytokine: EC, endogenous compound
Tripterygium wilfordii extract: AE, adverse drug reaction
Tripterygium wilfordii extract: CM, drug comparison
Tripterygium wilfordii extract: DO, drug dose
CONTROLLED TERM: Drug Descriptors:
Tripterygium wilfordii extract: DT, drug therapy
Tripterygium wilfordii extract: TO, drug toxicity
Tripterygium wilfordii extract: PD, pharmacology
Uncaria tomentosa extract: AE, adverse drug reaction
Uncaria tomentosa extract: DT, drug therapy
Uncaria tomentosa extract: PD, pharmacology
cyclooxygenase 2: EC, endogenous compound
inducible nitric oxide synthase: EC, endogenous compound
ginger extract: AE, adverse drug reaction
ginger extract: CT, clinical trial
ginger extract: CM, drug comparison
ginger extract: DT, drug therapy
ginger extract: PD, pharmacology
primrose oil: AE, adverse drug reaction
primrose oil: CB,. drug combination
primrose oil: DT, drug therapy
anesthetic agent: AE, adverse drug reaction
anesthetic agent: CB, drug combination
phenothiazine: AE, adverse drug reaction
phenothiazine: CB, drug combination
black currant extract: AE, adverse drug reaction
black currant extract: CT, clinical trial
black currant extract: DT, drug therapy
black currant extract: PD, pharmacology
tramadol: DT, drug therapy
rofecoxib: CT, clinical trial
rofecoxib: CM, drug comparison
rofecoxib: DT, drug therapy
ws 1531: DO, drug dose
ws 1531: DT, drug therapy
ws 1531: PD, pharmacology
ws 1531600: CT, clinical trial
ws 1531600: DT, drug therapy
ws 1531600: PO, oral drug administration
ws 1531600: PD, pharmacology
steiner harpagophytum procumbens extract 69: PD, pharmacology
doleteffin: CT, clinical trial
doleteffin: CM, drug comparison
doleteffin: DT, drug therapy
harpagogenin: PD, pharmacology

Harpagophytum extract: AE, adverse drug reaction
Harpagophytum extract: CT, clinical trial
Harpagophytum extract: CM, drug comparison
Harpagophytum extract: DT, drug therapy
Harpagophytum extract: PO, oral drug administration
Harpagophytum extract: PD, pharmacology
harpagide: AE, adverse drug reaction
harpagide: DT, drug therapy
harpagide: PD, pharmacology
harpagoside: AE, adverse drug reaction
harpagoside: CM, drug comparison
harpagoside: DT, drug therapy
harpagoside: PD, pharmacology
boragio officinalis extract: AE, adverse drug reaction
boragio officinalis extract: DT, drug therapy
ocimum americanum extract: AE, adverse drug reaction
ocimum americanum extract: DT, drug therapy
ocimum americanum extract: PD, pharmacology
Ocimum basilicum extract: AE, adverse drug reaction
Ocimum basilicum extract: DT, drug therapy
Ocimum basilicum extract: IP, intraperitoneal drug administration
Ocimum basilicum extract: PD, pharmacology
Ocimum sanctum extract: AE, adverse drug reaction
Ocimum sanctum extract: DT, drug therapy
Ocimum sanctum extract: PD, pharmacology
salix alba extract: AE, adverse drug reaction
salix alba extract: DT, drug therapy
salix fragilis extract: AE, adverse drug reaction
salix fragilis extract: DT, drug therapy
salix purpurea extract: AE, adverse drug reaction
salix purpurea extract: DT, drug therapy
salix dapnoides extract: AE, adverse drug reaction
salix dapnoides extract: DT, drug therapy
Salix extract: AE, adverse drug reaction
Salix extract: DT, drug therapy
willow extract: CT, clinical trial
willow extract: CM, drug comparison
willow extract: DO, drug dose
willow extract: DT, drug therapy
willow extract: PE, pharmacoeconomics
uncaria guianensis extract: DT, drug therapy
alpinia officinarum extract: AE, adverse drug reaction
alpinia officinarum extract: DT, drug therapy
indometacin: PD, pharmacology
acetylsalicylic acid: PD, pharmacology
linoleic acid: AE, adverse drug reaction
linoleic acid: DT, drug therapy
dihomo gamma linolenic acid: AE, adverse drug reaction
dihomo gamma linolenic acid: DT, drug therapy
salicylic acid: AE, adverse drug reaction
salicylic acid: DT, drug therapy
tannin derivative: AE, adverse drug reaction
tannin derivative: DT, drug therapy
flavonoid: AE, adverse drug reaction
flavonoid: DT, drug therapy
ester derivative: AE, adverse drug reaction
ester derivative: DT, drug therapy
canin: AE, adverse drug reaction
canin: DT, drug therapy

triptolide: AE, adverse drug reaction
triptolide: DT, drug therapy
triptolide: PO, oral drug administration
alkaloid derivative: AE, adverse drug reaction
alkaloid derivative: DT, drug therapy
tripdiolid: AE, adverse drug reaction
tripdiolid: DT, drug therapy
polyphenol derivative: AE, adverse drug reaction
polyphenol derivative: DT, drug therapy
gingerol: AE, adverse drug reaction
gingerol: DT, drug therapy
caffeic acid derivative: AE, adverse drug reaction
caffeic acid derivative: DT, drug therapy
estragole: AE, adverse drug reaction
salicylic acid derivative: DT, drug therapy
parthenolide: AE, adverse drug reaction
parthenolide: DT, drug therapy

CONTROLLED TERM: Drug Descriptors:
parthenolide: IP, intraperitoneal drug administration
parthenolide: PD, pharmacology
circumin: AE, adverse drug reaction
circumin: DT, drug therapy
salicin: AE, adverse drug reaction
salicin: CT, clinical trial
salicin: CM, drug comparison
salicin: DT, drug therapy
nonsteroid antiinflammatory agent: CM, drug comparison
nonsteroid antiinflammatory agent: PE, pharmacoeconomics
mig 99: CT, clinical trial
mig 99: DT, drug therapy
mig 99: PD, pharmacology
Tanacetum parthenium extract: AE, adverse drug reaction
Tanacetum parthenium extract: CT, clinical trial
Tanacetum parthenium extract: DT, drug therapy
Tanacetum parthenium extract: PO, oral drug administration
Tanacetum parthenium extract: PD, pharmacology
prednisone: AE, adverse drug reaction
prednisone: CM, drug comparison
salazosulfapyridine: CT, clinical trial
salazosulfapyridine: DT, drug therapy
hydroxychloroquine: CT, clinical trial
hydroxychloroquine: DT, drug therapy
Urtica dioica extract: AE, adverse drug reaction
Urtica dioica extract: CT, clinical trial
Urtica dioica extract: DT, drug therapy
Urtica dioica extract: PD, pharmacology
ids 30: PD, pharmacology
paracetamol
ibuprofen: CT, clinical trial
ibuprofen: CM, drug comparison
ibuprofen: DT, drug therapy
unclassified drug

CAS REGISTRY NO.: (gamma linolenic acid) 1686-12-0; (prostaglandin E2) 363-24-6; (gamma interferon) 82115-62-6; (inducible nitric oxide synthase) 501433-35-8; (primrose oil) 65546-85-2; (phenothiazine) 92-84-2; (tramadol) 27203-92-5, 36282-47-0; (rofecoxib) 162011-90-7, 186912-82-3; (harpagide) 6926-08-5; (harpagoside) 19210-12-9; (indometacin) 53-86-1, 74252-25-8, 7681-54-1; (acetylsalicylic acid) 493-53-8, 50-78-2, 53663-74-4, 53664-49-6, 63781-77-1; (linoleic

acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (dihomo gamma linolenic acid) 1783-84-2, 7324-41-6; (salicylic acid) 63-36-5, 69-72-7; (triptolide) 38748-32-2; (gingerol) 58253-27-3; (estragole) 140-67-0; (parthenolide) 20554-84-1; (salicin) 138-52-3; (prednisone) 53-03-2; (salazosulfapyridine) 599-79-1; (hydroxychloroquine) 118-42-3, 525-31-5; (paracetamol) 103-90-2; (ibuprofen) 15687-27-1

CHEMICAL NAME: Ws 1531; Ws 1531600; Aspirin; Mig 99; Ids 30; Ids 23

L179 ANSWER 46 OF 58 EMBASE

ACCESSION NUMBER: 2005211840 EMBASE

TITLE: Immunology of cutaneous vasculitis associated with both etanercept and infliximab.

AUTHOR: Srivastava M.D.; Alexander F.; Tuthill R.J.

CORPORATE SOURCE: Dr. M.D. Srivastava, Division of Allergy and Immunology, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195, United States. srivasm2@ccf.org

SOURCE: Scandinavian Journal of Immunology, (2005) Vol. 61, No. 4, pp. 329-336.
Refs: 29
ISSN: 0300-9475 CODEN: SJIMAX

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 013 Dermatology and Venereology
026 Immunology, Serology and Transplantation
037 Drug Literature Index
038 Adverse Reactions Titles
048 Gastroenterology

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 20050602
Last Updated on STN: 20050602

ABSTRACT: Targeted inhibition of tumour necrosis factor-α (TNF-α) is an effective therapy in rheumatoid arthritis and Crohn's disease (CD). Infliximab, a monoclonal murine-human chimeric antibody to TNF-α, and etanercept, a fusion protein of two p75 chains of the TNF receptor II and the Fc portion of IgG1, are generally well tolerated. Rarely does clinically significant autoimmunity, including drug-induced lupus and vasculitis occur. Immunologic mechanisms underlying the development of autoimmunity in the presence of such powerful immunosuppressants are unknown. We describe a patient with CD, who developed cutaneous vasculitis on etanercept, which worsened significantly with switch to infliximab. Investigation of the associated systemic and local immune response demonstrated the absence of human antichimera antibodies, but mRNA for T-helper 1 cytokines, chemokines and defensins in the skin and elevated angiogenesis factors in the serum, as determined by reverse-transcriptase polymerase chain reaction and enzyme-linked immunosorbent assay. Histopathology revealed a lymphocytic vasculitis composed of T cells. A permanent B-cell line (MD-B) producing extremely high amounts of chemokines and interleukin-6 was established from this patient's peripheral blood. Lesions progressed despite discontinuation of the drugs and (40 mg/day) prednisone but almost completely resolved with single dose of (0.1 mg/kg) intravenous dexamethasone, which may be therapy of choice for this reaction. A few lesions (<10) have recurred intermittently over 4 years of follow-up, suggesting possible persistence of this TNF-inhibitor-triggered autoimmune disease. .COPYRGT. 2005 Blackwell Publishing Ltd.

CONTROLLED TERM: Medical Descriptors:
*vasculitis: DT, drug therapy

*vasculitis: SI, side effect
*skin blood vessel disorder: DT, drug therapy
*skin blood vessel disorder: SI, side effect
rheumatoid arthritis
Crohn disease: DT, drug therapy
autoimmunity
disease exacerbation
cytokine production
Th1 cell
reverse transcription polymerase chain reaction
enzyme linked immunosorbent assay
histopathology
T lymphocyte
B lymphocyte
lymphocyte culture
drug withdrawal
single drug dose
drug choice
recurrent disease
follow up
autoimmune disease: DT, drug therapy
autoimmune disease: SI, side effect
rash: SI, side effect
dermatitis: SI, side effect
purpura: SI, side effect
night sweat: SI, side effect
flushing
skin burning sensation: SI, side effect
alopecia: SI, side effect
vagina bleeding: SI, side effect
muscle weakness: SI, side effect
arthralgia: SI, side effect
malaise: SI, side effect
skin defect: SI, side effect
eye disease: SI, side effect
pain: SI, side effect
erythema: SI, side effect
anaphylaxis: SI, side effect
infection: SI, side effect
tuberculosis: SI, side effect
cancer: SI, side effect
demyelinating disease: SI, side effect
blood dyscrasia: SI, side effect
lupus erythematosus: SI, side effect
human
female
case report
human tissue
human cell
adult
article
priority journal
Drug Descriptors:
*infliximab: AE, adverse drug reaction
*infliximab: DT, drug therapy
*etanercept: AE, adverse drug reaction
*etanercept: DT, drug therapy
tumor necrosis factor alpha: EC, endogenous compound
monoclonal antibody: AE, adverse drug reaction
monoclonal antibody: DT, drug therapy

chimeric antibody: AE, adverse drug reaction
chimeric antibody: DT, drug therapy
tumor necrosis factor alpha antibody: AE, adverse drug reaction
tumor necrosis factor alpha antibody: DT, drug therapy
hybrid protein: AE, adverse drug reaction
hybrid protein: DT, drug therapy
protein p75: AE, adverse drug reaction
protein p75: DT, drug therapy
tumor necrosis factor receptor 2: AE, adverse drug reaction
tumor necrosis factor receptor 2: DT, drug therapy
immunoglobulin G1: AE, adverse drug reaction
immunoglobulin G1: DT, drug therapy
immunoglobulin Fc fragment: AE, adverse drug reaction
immunoglobulin Fc fragment: DT, drug therapy
immunosuppressive agent: AE, adverse drug reaction
immunosuppressive agent: DT, drug therapy
messenger RNA: EC, endogenous compound
cytokine: EC, endogenous compound
chemokine: EC, endogenous compound
defensin: EC, endogenous compound
angiogenic factor: EC, endogenous compound
interleukin 6: EC, endogenous compound
prednisone: DT, drug therapy
prednisone: PO, oral drug administration
dexamethasone: DO, drug dose
dexamethasone: DT, drug therapy
dexamethasone: IV, intravenous drug administration
methotrexate
designer drug
azathioprine
hydrocortisone: IV, intravenous drug administration
diphenhydramine
paracetamol: PO, oral drug administration
ranitidine
metronidazole
ciprofloxacin
amoxicillin
loperamide
adrenalin
immunoglobulin: IV, intravenous drug administration
pimecrolimus: TP, topical drug administration
lipid: IV, intravenous drug administration
linoleic acid: PO, oral drug administration
linolenic acid: PO, oral drug administration
intralipid: AE, adverse drug reaction
liposyn II

CAS REGISTRY NO.: (infliximab) 170277-31-3; (etanercept) 185243-69-0, 200013-86-1; (protein p75) 91608-97-8; (prednisone) 53-03-2; (dexamethasone) 50-02-2; (methotrexate) 15475-56-6, 59-05-2, 7413-34-5; (azathioprine) 446-86-6; (hydrocortisone) 50-23-7; (diphenhydramine) 147-24-0, 58-73-1; (paracetamol) 103-90-2; (ranitidine) 66357-35-5, 66357-59-3; (metronidazole) 39322-38-8, 443-48-1; (ciprofloxacin) 85721-33-1; (amoxicillin) 26787-78-0, 34642-77-8, 61336-70-7; (loperamide) 34552-83-5, 53179-11-6; (adrenalin) 51-43-4, 55-31-2, 6912-68-1; (immunoglobulin) 9007-83-4; (pimecrolimus) 137071-32-0; (lipid) 66455-18-3; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (linolenic acid) 1955-33-5, 463-40-1;

(intralipid) 68890-65-3; (liposyn II) 112353-79-4
CHEMICAL NAME: Zantac; Flagyl; Cipro

L179 ANSWER 47 OF 58 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2005228339 EMBASE
TITLE: Anti-inflammatory effects of long-chain ω3 fatty acids: Potential benefits for atrial fibrillation [11].
AUTHOR: Liu T.; Li G.
CORPORATE SOURCE: T. Liu, Department of Cardiology, Second Hosp. of Tianjin Med. Univ., N023, Pingjiang Road, HeXi District, Tianjin 300211, China. liutongdoc@yahoo.com.cn
SOURCE: Medical Hypotheses, (2005) Vol. 65, No. 1, pp. 200-201. Refs: 11
ISSN: 0306-9877 CODEN: MEHYDY
PUBLISHER IDENT.: S 0306-9877(05)00063-0
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Letter
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
ENTRY DATE: Entered STN: 20050616
Last Updated on STN: 20050616
CONTROLLED TERM: Medical Descriptors:
*antiinflammatory activity
*heart atrium fibrillation: DT, drug therapy
drug effect
dietary intake
drug mechanism
pathogenesis
cardiovascular risk
diet supplementation
rheumatoid arthritis: DT, drug therapy
psoriasis: DT, drug therapy
asthma: DT, drug therapy
enteritis: DT, drug therapy
human
letter
priority journal
Drug Descriptors:
*omega 3 fatty acid: DT, drug therapy
*omega 3 fatty acid: PD, pharmacology
*long chain fatty acid: DT, drug therapy
*long chain fatty acid: PD, pharmacology
C reactive protein: EC, endogenous compound
fish oil: PD, pharmacology
amyloid A protein: EC, endogenous compound
interleukin 6: EC, endogenous compound
linoleic acid: PD, pharmacology
CAS REGISTRY NO.: (C reactive protein) 9007-41-4; (fish oil) 8016-13-5; (amyloid A protein) 59165-71-8; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3

L179 ANSWER 48 OF 58 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2004422010 EMBASE
TITLE: The health benefits of omega-3 polyunsaturated fatty acids: A review of the evidence.
AUTHOR: Ruxton C.H.S.; Reed S.C.; Simpson M.J.A.; Millington K.J.
CORPORATE SOURCE: Dr. C.H.S. Ruxton, Nutrition Communications, 6 Front

Lebanon, Cupar KY15 4EA, United Kingdom.
carrie@nutrition-communications.com
SOURCE: Journal of Human Nutrition and Dietetics, (2004) Vol. 17, No. 5, pp. 449-459.
Refs: 74
ISSN: 0952-3871 CODEN: JHNDEO
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology
018 Cardiovascular Diseases and Cardiovascular Surgery
026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20041021
Last Updated on STN: 20041021

ABSTRACT: The UK dietary guidelines for cardiovascular disease acknowledge the importance of long-chain omega-3 polyunsaturated fatty acids (PUFA) - a component of fish oils - in reducing heart disease risk. At the time, it was recommended that the average n-3 PUFA intake should be increased from 0.1 to 0.2 g day(-1). However, since the publication of these guidelines, a plethora of evidence relating to the beneficial effects of n-3 PUFAs, in areas other than heart disease, has emerged. The majority of intervention studies, which found associations between various conditions and the intake of fish oils or their derivatives, used n-3 intakes well above the 0.2 g day(-1) recommended by Committee on Medical Aspects of Food Policy (COMA). Furthermore, in 2004, the Food Standards Agency changed its advice on oil-rich fish creating a discrepancy between the levels of n-3 PUFA implied by the new advice and the 1994 COMA guideline. This review will examine published evidence from observational and intervention studies relating to the health effects of n-3 PUFAs, and discuss whether the current UK recommendation for long-chain n-3 PUFA needs to be revisited. .COPYRGT. The British Dietetic Association Ltd 2004.

CONTROLLED TERM: Medical Descriptors:
nutritional health
evidence based medicine
United Kingdom
dietary intake
practice guideline
cardiovascular disease: DT, drug therapy
cardiovascular disease: PC, prevention
cardiovascular disease: TH, therapy
food composition
risk reduction
publication
correlation analysis
treatment outcome
diet therapy
disease association
drug dose regimen
health care policy
government
clinical observation
drug structure
drug mechanism
inflammatory disease: DT, drug therapy
enteritis: DT, drug therapy

asthma: DT, drug therapy
cystic fibrosis: DT, drug therapy
rheumatoid arthritis: DT, drug therapy
brain development
mental health
depression: DT, drug therapy
bipolar disorder: DT, drug therapy
cognitive defect: DT, drug therapy
cognitive defect: PC, prevention
systematic review
human
clinical trial
review
Drug Descriptors:
*omega 3 fatty acid: CT, clinical trial
*omega 3 fatty acid: AN, drug analysis
*omega 3 fatty acid: CB, drug combination
*omega 3 fatty acid: CM, drug comparison
*omega 3 fatty acid: DO, drug dose
*omega 3 fatty acid: DT, drug therapy
*omega 3 fatty acid: EC, endogenous compound
*omega 3 fatty acid: PD, pharmacology
long chain fatty acid: CT, clinical trial
long chain fatty acid: AN, drug analysis
long chain fatty acid: CB, drug combination
long chain fatty acid: CM, drug comparison
long chain fatty acid: DO, drug dose
long chain fatty acid: DT, drug therapy
long chain fatty acid: EC, endogenous compound
long chain fatty acid: PD, pharmacology
fish oil: CT, clinical trial
fish oil: AN, drug analysis
fish oil: CB, drug combination
fish oil: CM, drug comparison
fish oil: DO, drug dose
fish oil: DT, drug therapy
fish oil: PD, pharmacology
docosahexaenoic acid: CT, clinical trial
docosahexaenoic acid: AN, drug analysis
docosahexaenoic acid: CB, drug combination
docosahexaenoic acid: CM, drug comparison
docosahexaenoic acid: DO, drug dose
docosahexaenoic acid: DT, drug therapy
docosahexaenoic acid: EC, endogenous compound
docosahexaenoic acid: PD, pharmacology
icosapentaenoic acid: CT, clinical trial
icosapentaenoic acid: AN, drug analysis
icosapentaenoic acid: CB, drug combination
icosapentaenoic acid: CM, drug comparison
icosapentaenoic acid: DO, drug dose
icosapentaenoic acid: DT, drug therapy
icosapentaenoic acid: EC, endogenous compound
icosapentaenoic acid: PD, pharmacology
linoleic acid: CM, drug comparison
linoleic acid: PD, pharmacology
omega 6 fatty acid: EC, endogenous compound
arachidonic acid: EC, endogenous compound
linseed oil: CM, drug comparison
linseed oil: PD, pharmacology
saturated fatty acid

alpha tocopherol: CT, clinical trial
alpha tocopherol: CB, drug combination
alpha tocopherol: CM, drug comparison
alpha tocopherol: DT, drug therapy
nonsteroid antiinflammatory agent: DT, drug therapy
CAS REGISTRY NO.: (fish oil) 8016-13-5; (docosahexaenoic acid) 25167-62-8, 32839-18-2; (icosapentaenoic acid) 25378-27-2, 32839-30-8; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (arachidonic acid) 506-32-1, 6610-25-9, 7771-44-0; (linseed oil) 8001-26-1; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9

L179 ANSWER 49 OF 58 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2004141716 EMBASE
TITLE: Fish oil supplementation: Evidence for health benefits.
AUTHOR: Harris W.S.
CORPORATE SOURCE: Dr. W.S. Harris, 4320 Wornall Road, Kansas City, MO 64111, United States. wharris@saint-lukes.org
SOURCE: Cleveland Clinic Journal of Medicine, (2004) Vol. 71, No. 3, pp. 208-221.
Refs: 48
ISSN: 0891-1150 CODEN: CCJMEL
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology
018 Cardiovascular Diseases and Cardiovascular Surgery
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20040412
Last Updated on STN: 20040412
ABSTRACT: Many health claims for fish oil (which contains omega-3 fatty acids) in conditions from Alzheimer disease to Zellweger syndrome are based on indirect evidence. But the evidence is direct for a benefit in coronary heart disease prevention, and the American Heart Association recently issued guidelines for the intake of omega-3 oils. This article answers a series of questions that health care professionals often ask regarding fish oil, such as what are proper dosages, and are there risks of ingesting pollutants by eating more fish or using supplements?.

CONTROLLED TERM: Medical Descriptors:
*diet supplementation
*heart disease: DT, drug therapy
*heart disease: PC, prevention
Alzheimer disease: DT, drug therapy
Zellweger syndrome: DT, drug therapy
evidence based medicine
ischemic heart disease: DT, drug therapy
ischemic heart disease: PC, prevention
United States
health care organization
health practitioner
drug dose regimen
risk assessment
ingestion
pollutant

food intake
drug capsule
food contamination
pregnancy
Eskimo
drug structure
sea food
drug metabolism
heart protection
cardiovascular disease: DT, drug therapy
cardiovascular disease: PC, prevention
heart reinfarction: DT, drug therapy
heart reinfarction: PC, prevention
angina pectoris: DT, drug therapy
angina pectoris: PC, prevention
heart infarction: DT, drug therapy
heart infarction: PC, prevention
drug efficacy
drug mechanism
heart arrhythmia: DT, drug therapy
heart arrhythmia: PC, prevention
drug formulation
drug blood level
rheumatoid arthritis: DT, drug therapy
systemic lupus erythematosus: DT, drug therapy
Crohn disease: DT, drug therapy
ulcerative colitis: DT, drug therapy
immunoglobulin A nephropathy: DT, drug therapy
prostate cancer: DT, drug therapy
human
nonhuman
clinical trial
review
Drug Descriptors:
*fish oil: CT, clinical trial
*fish oil: AN, drug analysis
*fish oil: CM, drug comparison
*fish oil: CR, drug concentration
*fish oil: DO, drug dose
*fish oil: DT, drug therapy
*fish oil: EC, endogenous compound
*fish oil: PR, pharmaceutics
*fish oil: PK, pharmacokinetics
*fish oil: PD, pharmacology
omega 3 fatty acid: CT, clinical trial
omega 3 fatty acid: AN, drug analysis
omega 3 fatty acid: CM, drug comparison
omega 3 fatty acid: CR, drug concentration
omega 3 fatty acid: DO, drug dose
omega 3 fatty acid: DT, drug therapy
omega 3 fatty acid: EC, endogenous compound
omega 3 fatty acid: PR, pharmaceutics
omega 3 fatty acid: PK, pharmacokinetics
omega 3 fatty acid: PD, pharmacology
mercury: TO, drug toxicity
icosapentaenoic acid: CT, clinical trial
icosapentaenoic acid: AN, drug analysis
icosapentaenoic acid: CM, drug comparison
icosapentaenoic acid: CR, drug concentration
icosapentaenoic acid: DO, drug dose

icosapentaenoic acid: DT, drug therapy
icosapentaenoic acid: EC, endogenous compound
icosapentaenoic acid: PR, pharmaceutics
icosapentaenoic acid: PK, pharmacokinetics
icosapentaenoic acid: PD, pharmacology
docosahexaenoic acid: CT, clinical trial
docosahexaenoic acid: AN, drug analysis
docosahexaenoic acid: CM, drug comparison
docosahexaenoic acid: CR, drug concentration
docosahexaenoic acid: DO, drug dose
docosahexaenoic acid: DT, drug therapy
docosahexaenoic acid: EC, endogenous compound
docosahexaenoic acid: PR, pharmaceutics
docosahexaenoic acid: PK, pharmacokinetics
docosahexaenoic acid: PD, pharmacology
linoleic acid: CT, clinical trial
linoleic acid: AN, drug analysis
linoleic acid: CM, drug comparison
linoleic acid: DO, drug dose
linoleic acid: DT, drug therapy
linoleic acid: EC, endogenous compound
linoleic acid: PK, pharmacokinetics
linoleic acid: PD, pharmacology
arachidonic acid: EC, endogenous compound
placebo
calcium channel blocking agent: CM, drug comparison
calcium channel blocking agent: PD, pharmacology
beta adrenergic receptor blocking agent: CM, drug comparison
beta adrenergic receptor blocking agent: PD, pharmacology
triacylglycerol
methyl group
ester derivative
immunoglobulin A: EC, endogenous compound
kirkland signature fish oil concentrate
members mark omega 3 fish oil
gnc liquid norwegian clo
spring valley maxepa
origin natural fish oil concentrate
walgreens fish oil concentrate
your life fish oil concentrate
gnc fish body oils 1000
natrol omega 3

CONTROLLED TERM: Drug Descriptors:
vitasmart fish oil concentrate
sav on fish oil concentrate
sundown fish oil
nature made fish oil
natures bounty natural fish oil
rexall cholesterol free fish oil
gnc triple cod liver oil clo caps
twinlab emulsified norwegian clo
omega 3 enteric coated

CAS REGISTRY NO.: (fish oil) 8016-13-5; (mercury) 14302-87-5, 7439-97-6; (icosapentaenoic acid) 25378-27-2, 32839-30-8; (docosahexaenoic acid) 25167-62-8, 32839-18-2; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (arachidonic acid) 506-32-1, 6610-25-9, 7771-44-0

CHEMICAL NAME: (1) Kirkland signature fish oil concentrate; (2) Members mark omega 3 fish oil; (3) Gnc liquid norwegian clo; (4)

Spring valley maxepa; (5) Origin natural fish oil concentrate; (6) Walgreens fish oil concentrate; (7) Your life fish oil concentrate; (8) Gnc fish body oils 1000; (9) Natrol omega 3; (10) Vitasmart fish oil concentrate; (11) Sav on fish oil concentrate; (12) Sundown fish oil; (13) Nature made fish oil; (14) Natures bounty natural fish oil; (15) Rexall cholesterol free fish oil; (16) Gnc triple cod liver oil clo caps; (17) Twinlab emulsified norwegian clo; (18) Omacor; Omega 3 enteric coated

COMPANY NAME: (1) Kirkland Signature; (2) Members Mark; (4) Spring Valley; (5) Origin; (6) Walgreen; (7) Your Life; (9) Natrol; (10) VitaSmart; (11) Sav On; (12) Sundown; (13) Nature Made Nutritional Products; (14) Natures Bounty; (15) Rexall Corporation; (16) GNC; (17) Twinlab; (18) Pronova (Norway)

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ACCESSION NUMBER: 2005038839 EMBASE
TITLE: The role of dietary omega-3 and omega-6 essential fatty acids in the nutrition of dogs and cats: A review.
AUTHOR: Biagi G.; Mordenti A.L.; Cocchi M.
CORPORATE SOURCE: Dr. G. Biagi, DIMORFIPA, via Tolara di Sopra 50, 40064 - Ozzano Emilia, Italy. gbiagi@vet.unibo.it
SOURCE: Progress in Nutrition, (2004) Vol. 6, No. 2, pp. 97-107. Refs: 80
ISSN: 1129-8723 CODEN: PNRUAT
COUNTRY: Italy
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 016 Cancer
018 Cardiovascular Diseases and Cardiovascular Surgery
028 Urology and Nephrology
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English; Italian
ENTRY DATE: Entered STN: 20050210
Last Updated on STN: 20050210

ABSTRACT: Omega-3 and omega-6 fatty acids are essential in all mammalians for normal growth and prevention of several diseases. Because of the seed oil production tendencies and the feeding techniques of farm animals, in the Western countries, diets for humans as well as homemade diets for dogs and cats are usually very high in omega-6 and low in omega-3 fatty acids. Several studies have shown that an optimal omega-6/omega-3 fatty acid ratio (about 6 to 1) in the diet of dogs and cats may reduce the incidence of some diseases, such as cancer and sudden cardiac death. Furthermore, the use of fatty acid supplements has proved to be beneficial in the treatment of several pathogenic conditions, such as chronic inflammatory diseases, atopy, chronic renal insufficiency, and some types of cancer. Therefore, particular attention should be paid to the type and quantity of fat sources that are used when diets for dogs and cats are formulated, in order to assure the optimal amount and balance of omega-3 and omega-6 fatty acids in the food.

CONTROLLED TERM: Medical Descriptors:
*nutrition
*diet supplementation
dog
cat
cancer: DT, drug therapy

cancer: ET, etiology
cancer: PC, prevention
sudden death
chronic inflammation: DT, drug therapy
chronic inflammation: ET, etiology
chronic inflammation: PC, prevention
atopy: DT, drug therapy
atopy: ET, etiology
atopy: PC, prevention
chronic kidney failure: DT, drug therapy
chronic kidney failure: ET, etiology
chronic kidney failure: PC, prevention
food intake
fatty acid metabolism
essential fatty acid deficiency: DT, drug therapy
essential fatty acid deficiency: ET, etiology
essential fatty acid deficiency: PC, prevention
dietary intake
nervous system development
immune system
antiinflammatory activity
thrombocyte aggregation
lipid composition
rheumatoid arthritis: DT, drug therapy
rheumatoid arthritis: PC, prevention
skin allergy: DT, drug therapy
skin allergy: PC, prevention
drug potentiation
cardiovascular disease: DT, drug therapy
cardiovascular disease: ET, etiology
cardiovascular disease: PC, prevention
antiarrhythmic activity
lymphoma: DT, drug therapy
lymphoma: ET, etiology
lymphoma: PC, prevention
human
nonhuman
review
Drug Descriptors:
*omega 3 fatty acid: CB, drug combination
*omega 3 fatty acid: IT, drug interaction
*omega 3 fatty acid: DT, drug therapy
*omega 3 fatty acid: PD, pharmacology
*omega 6 fatty acid: CB, drug combination
*omega 6 fatty acid: IT, drug interaction
*omega 6 fatty acid: DT, drug therapy
*omega 6 fatty acid: PD, pharmacology
essential fatty acid: CB, drug combination
essential fatty acid: IT, drug interaction
essential fatty acid: DT, drug therapy
essential fatty acid: PD, pharmacology
linoleic acid: DT, drug therapy
linoleic acid: EC, endogenous compound
arachidonic acid: DT, drug therapy
arachidonic acid: EC, endogenous compound
arachidonic acid: PD, pharmacology
icosapentaenoic acid: CB, drug combination
icosapentaenoic acid: CM, drug comparison
icosapentaenoic acid: DT, drug therapy
icosapentaenoic acid: EC, endogenous compound

icosapentaenoic acid: PD, pharmacology
docosahexaenoic acid: CB, drug combination
docosahexaenoic acid: CM, drug comparison
docosahexaenoic acid: DT, drug therapy
docosahexaenoic acid: EC, endogenous compound
gamma linolenic acid: CB, drug combination
gamma linolenic acid: CM, drug comparison
gamma linolenic acid: DT, drug therapy
gamma linolenic acid: EC, endogenous compound
dihomo gamma linolenic acid: EC, endogenous compound
polyunsaturated fatty acid: CB, drug combination
polyunsaturated fatty acid: CM, drug comparison
polyunsaturated fatty acid: IT, drug interaction
polyunsaturated fatty acid: DT, drug therapy
polyunsaturated fatty acid: EC, endogenous compound
polyunsaturated fatty acid: PD, pharmacology
leukotriene B4: EC, endogenous compound
prostaglandin E2: EC, endogenous compound
thrombocyte activating factor: EC, endogenous compound
thromboxane A2: EC, endogenous compound
tumor necrosis factor alpha: EC, endogenous compound
interleukin 1beta: EC, endogenous compound
prostaglandin I3: EC, endogenous compound
leukotriene B5: EC, endogenous compound
interleukin 2: EC, endogenous compound
nitric oxide: EC, endogenous compound
fish oil: CB, drug combination
fish oil: CM, drug comparison
fish oil: DT, drug therapy
vegetable oil: CB, drug combination
vegetable oil: DT, drug therapy
olive oil: CM, drug comparison
olive oil: DT, drug therapy
primrose oil: CB, drug combination
primrose oil: CM, drug comparison
primrose oil: DT, drug therapy
antihistaminic agent: CB, drug combination
antihistaminic agent: IT, drug interaction
antihistaminic agent: DT, drug therapy
safflower oil: DT, drug therapy
safflower oil: TO, drug toxicity
interleukin 6: EC, endogenous compound
arachis oil: DT, drug therapy
sunflower oil: DT, drug therapy
unindexed drug

CAS REGISTRY NO.: (essential fatty acid) 11006-87-4; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (arachidonic acid) 506-32-1, 6610-25-9, 7771-44-0; (icosapentaenoic acid) 25378-27-2, 32839-30-8; (docosahexaenoic acid) 25167-62-8, 32839-18-2; (gamma linolenic acid) 1686-12-0; (dihomo gamma linolenic acid) 1783-84-2, 7324-41-6; (leukotriene B4) 71160-24-2; (prostaglandin E2) 363-24-6; (thrombocyte activating factor) 64176-80-3, 65154-06-5; (thromboxane A2) 57576-52-0; (prostaglandin I3) 68794-57-0; (leukotriene B5) 80445-66-5; (interleukin 2) 85898-30-2; (nitric oxide) 10102-43-9; (fish oil) 8016-13-5; (olive oil) 8001-25-0; (primrose oil) 65546-85-2; (safflower oil) 8001-23-8; (arachis oil) 8002-03-7, 8031-20-7; (sunflower oil) 8001-21-6

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ACCESSION NUMBER: 2003468972 EMBASE

TITLE: Health benefits and potential risks related to consumption of fish or fish oil.

AUTHOR: Sidhu K.S.

CORPORATE SOURCE: K.S. Sidhu, Inst. for Environmental Toxicology, Michigan State University, C231 Holden Hall, East Lansing, MI 48824, United States. sidhuk@msu.edu

SOURCE: Regulatory Toxicology and Pharmacology, (2003) Vol. 38, No. 3, pp. 336-344.
Refs: 77
ISSN: 0273-2300 CODEN: RTOPDW

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 030 Pharmacology
036 Health Policy, Economics and Management
037 Drug Literature Index
038 Adverse Reactions Titles
052 Toxicology

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 20031204
Last Updated on STN: 20031204

ABSTRACT: The nutritional benefits of fish consumption relate to the utilization of proteins of high biological value, as well as certain minerals and vitamins that fish provide. Fish or fish oil contains omega-3 polyunsaturated fatty acids (PUFAs) that appear to play several useful roles for human health. Conversely, some carcinogenic contaminants are also stored in the adipose tissue of fish. The objective of this paper is to evaluate the potential health benefits and risks related to the consumption of fish or fish oil. Health benefits related to the consumption of fish or omega-3 PUFAs were obtained by an extensive literature search. Potential health risks related to carcinogenic contaminants (e.g., dioxin, PCB, etc.) in fish were estimated using the U.S. EPA-approved cancer risk assessment guidelines. Potential health risk estimates were evaluated by comparing them with the acceptable excess risk level of 10(-6)-10(-4). Scientific data indicate that the consumption of fish or fish oil containing omega-3 PUFAs reduces the risk of coronary heart disease, decreases mild hypertension, and prevents certain cardiac arrhythmias and sudden death. Risk estimates in humans for carcinogenic environmental contaminants in fish ranged from an excess risk level of 3x10 (-6)-9x10(-4). These risk estimates appeared to meet the acceptable excess risk level criteria. Therefore, consumption of fish in accordance with the State of Michigan Fish Advisory Guidelines is safe and should be encouraged. The top 11 fish species [e.g., sardines, mackerel, herring (Atlantic and Pacific), lake trout, salmon (Chinook, Atlantic, and Sockeye), anchovy (European), sablefish, and bluefish] provide an adequate amount of omega-3 PUFAs (2.7-7.5g/meal) and appear to meet the nutritional recommendation of the American Heart Association. .COPYRGT. 2003 Elsevier Inc. All rights reserved.

CONTROLLED TERM: Medical Descriptors:
*food intake
*risk assessment
*health hazard
*nutrition
fish
food contamination
United States
cancer risk

cardiovascular risk
ischemic heart disease
borderline hypertension
heart arrhythmia
sudden death
stroke
rheumatoid arthritis: DT, drug therapy
diabetes mellitus
brain development
genital system
vision
depression
cancer
thrombocyte aggregation inhibition
antiarrhythmic activity
gastrointestinal disease: SI, side effect
blood clotting disorder: SI, side effect
metabolic disorder: SI, side effect
immunopathology: SI, side effect
hyperlipidemia: SI, side effect
drug cost
human
article
priority journal
Drug Descriptors:
*fish oil: AE, adverse drug reaction
*fish oil: DT, drug therapy
*fish oil: PE, pharmacoeconomics
*fish oil: PD, pharmacology
*unsaturated fatty acid: AE, adverse drug reaction
*unsaturated fatty acid: DT, drug therapy
*unsaturated fatty acid: PE, pharmacoeconomics
*unsaturated fatty acid: PD, pharmacology
carcinogen: TO, drug toxicity
dioxin: TO, drug toxicity
linoleic acid: AE, adverse drug reaction
linoleic acid: PE, pharmacoeconomics
linoleic acid: PD, pharmacology
gamma linolenic acid: AE, adverse drug reaction
gamma linolenic acid: PE, pharmacoeconomics
gamma linolenic acid: PD, pharmacology
arachidonic acid: AE, adverse drug reaction
arachidonic acid: PE, pharmacoeconomics
arachidonic acid: PD, pharmacology
icosapentaenoic acid: AE, adverse drug reaction
icosapentaenoic acid: DT, drug therapy
icosapentaenoic acid: PE, pharmacoeconomics
icosapentaenoic acid: PD, pharmacology
docosahexaenoic acid: AE, adverse drug reaction
docosahexaenoic acid: PE, pharmacoeconomics
docosahexaenoic acid: PD, pharmacology
chlordane: TO, drug toxicity
chlorphenotane: TO, drug toxicity
dieldrin: TO, drug toxicity
endrin: TO, drug toxicity
heptachlor: TO, drug toxicity
mercury: TO, drug toxicity
mirex: TO, drug toxicity
polychlorinated biphenyl: TO, drug toxicity
campheclor: TO, drug toxicity

antithrombocytic agent: PD, pharmacology
antiarrhythmic agent: PD, pharmacology
CAS REGISTRY NO.: (fish oil) 8016-13-5; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (gamma linolenic acid) 1686-12-0; (arachidonic acid) 506-32-1, 6610-25-9, 7771-44-0; (icosapentaenoic acid) 25378-27-2, 32839-30-8; (docosahexaenoic acid) 25167-62-8, 32839-18-2; (chlordane) 12789-03-6, 57-74-9; (chlorphenotane) 50-29-3; (dieldrin) 13366-73-9, 60-57-1; (endrin) 72-20-8; (heptachlor) 33442-83-0, 76-44-8; (mercury) 14302-87-5, 7439-97-6; (mirex) 2385-85-5; (campheclor) 51394-15-1, 8001-35-2

L179 ANSWER 52 OF 58 EMBASE

ACCESSION NUMBER: 2002059512 EMBASE
TITLE: Regulatory potential of n-3 fatty acids in immunological and inflammatory processes.
AUTHOR: Grimm H.; Mayer K.; Mayser P.; Eigenbrodt E.
CORPORATE SOURCE: Dr. H. Grimm, Dept. of Gen. and Thoracic Surgery, University of Giessen, Rudolf-Buchheim-Strasse 7, D-35385 Giessen, Germany. helmut.grimm@chiru.med.uni-giessen.de
SOURCE: British Journal of Nutrition, (2002) Vol. 87, No. SUPPL. 1, pp. S59-S67.
Refs: 83
ISSN: 0007-1145 CODEN: BJNUAV
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 029 Clinical Biochemistry
026 Immunology, Serology and Transplantation
015 Chest Diseases, Thoracic Surgery and Tuberculosis
030 Pharmacology
039 Pharmacy
031 Arthritis and Rheumatism
048 Gastroenterology
018 Cardiovascular Diseases and Cardiovascular Surgery
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20020221
Last Updated on STN: 20020221
ABSTRACT: Over the last few years immunonutrition has gained increasing importance. Among other compounds lipids, especially n-3 polyunsaturated fatty acids, were shown to influence the immune response. The anti-inflammatory effects they exert can be induced by free fatty acids, triglyceride fatty acids, after incorporation into the membrane phospholipid bilayer or following metabolism to eicosanoids. n-3 Fatty acids influence inflammatory cell activation processes from signal transduction to protein expression even involving effects at the genomic level. n-3 Fatty acid-mediated mechanisms decreased cytokine-induced adhesion molecule expression, thereby reducing inflammatory leucocyte-endothelium interactions and modified lipid mediator synthesis, thus influencing the transendothelial migration of leucocytes and leucocyte trafficking in general. Even the metabolic repertoire of specific immunocompetent cells such as cytokine release or proliferation is modified by n-3 fatty acids. Beyond this they regulate lipid homeostasis shifting the metabolic pathways towards energy supply thus optimizing the function of immune cells. Due to the regulatory impact on different processes of inflammatory and immune cell activation n-3 fatty acids provide positive effects on various states of immune deficiencies and diseases with a hyperinflammatory character, among which selected examples are presented.

CONTROLLED TERM:

Medical Descriptors:
*immunomodulation
*inflammation
human
nonhuman
regulatory mechanism
immune response
antiinflammatory activity
lipid metabolism
phospholipid bilayer
drug mechanism
inflammatory cell
cell activation
signal transduction
protein expression
genome
cell interaction
leukocyte migration
endothelium
mediator release
leukocyte motility
immunocompetent cell
cytokine release
cell proliferation
homeostasis
energy metabolism
cell function
immune deficiency
immunity
fatty acid metabolism
experimental transplantation
lung injury: DT, drug therapy
rheumatoid arthritis: TH, therapy
graft survival
graft versus host reaction: DT, drug therapy
drug screening
heart disease: SU, surgery
protection
sepsis: DT, drug therapy
lung insufficiency: DT, drug therapy
diet supplementation
enteritis: DT, drug therapy
ulcerative colitis: DT, drug therapy
ulcerative colitis: TH, therapy
Crohn disease: TH, therapy
Crohn disease: DT, drug therapy
drug coating
review
Drug Descriptors:
*omega 3 fatty acid: PD, pharmacology
*omega 3 fatty acid: DT, drug therapy
*omega 3 fatty acid: DV, drug development
*omega 3 fatty acid: PO, oral drug administration
lipid: EC, endogenous compound
fatty acid: EC, endogenous compound
membrane phospholipid: EC, endogenous compound
icosanoid: EC, endogenous compound
cytokine: EC, endogenous compound
cell adhesion molecule: EC, endogenous compound
fish oil: DT, drug therapy

fish oil: PD, pharmacology
fish oil: DV, drug development
fish oil: PO, oral drug administration
fish oil: PR, pharmaceutics
immunosuppressive agent: DV, drug development
immunosuppressive agent: DT, drug therapy
immunosuppressive agent: PD, pharmacology
icosapentaenoic acid: DV, drug development
icosapentaenoic acid: PD, pharmacology
icosapentaenoic acid: DT, drug therapy
linoleic acid: DV, drug development
linoleic acid: DT, drug therapy
linoleic acid: IV, intravenous drug administration
linoleic acid: PD, pharmacology
omega 6 fatty acid
antiinflammatory agent: DT, drug therapy
antiinflammatory agent: CB, drug combination
steroid: DT, drug therapy
steroid: CB, drug combination
mesalazine: DT, drug therapy
mesalazine: CB, drug combination

CAS REGISTRY NO.: (lipid) 66455-18-3; (fish oil) 8016-13-5; (icosapentaenoic acid) 25378-27-2, 32839-30-8; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (mesalazine) 89-57-6

L179 ANSWER 53 OF 58 EMBASE

ACCESSION NUMBER: 95072150 EMBASE
DOCUMENT NUMBER: 1995072150
TITLE: [Nutritional influences in rheumatoid arthritis]. ERNAHRUNGSEINFLUSSE BEI RHEUMATOIDER ARTHRITIS.
AUTHOR: Kupper C.
CORPORATE SOURCE: Freiburger Strasse 64,D-50859 Koln, Germany
SOURCE: Fortschritte der Medizin, (1995) Vol. 113, No. 5, pp. 20+22.
ISSN: 0015-8178 CODEN: FMDZAR
COUNTRY: Germany
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology
029 Clinical Biochemistry
031 Arthritis and Rheumatism
037 Drug Literature Index
LANGUAGE: German
ENTRY DATE: Entered STN: 950405
Last Updated on STN: 950405
CONTROLLED TERM: Medical Descriptors:
*diet
*nutrition
***rheumatoid arthritis: ET, etiology**
***rheumatoid arthritis: DT, drug therapy**
conference paper
human
oral drug administration
Drug Descriptors:
*alpha tocopherol: DT, drug therapy
*antioxidant: DT, drug therapy
*cytokine: EC, endogenous compound
*icosanoid: EC, endogenous compound
***linoleic acid: DT, drug therapy**
arachidonic acid: EC, endogenous compound

CAS REGISTRY NO.: (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (arachidonic acid) 506-32-1, 6610-25-9, 7771-44-0

L179 ANSWER 54 OF 58 EMBASE

ACCESSION NUMBER: 92068992 EMBASE
DOCUMENT NUMBER: 1992068992
TITLE: Evening primrose oil in patients with rheumatoid arthritis and side-effects of non-steroidal anti-inflammatory drugs.
AUTHOR: Brzeski M.; Madhok R.; Capell H.A.
CORPORATE SOURCE: Rheumatic Diseases Centre, Stoke Mandeville Hospital,Aylesbury, HP21 8AL, United Kingdom
SOURCE: British Journal of Rheumatology, (1991) Vol. 30, No. 5, pp. 370-372.
ISSN: 0263-7103 CODEN: BJRHDF
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 031 Arthritis and Rheumatism
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 920329
Last Updated on STN: 920329

ABSTRACT: Forty patients with rheumatoid arthritis and upper gastrointestinal lesions due to non-steroidal anti-inflammatory drugs entered a prospective 6-month double-blind placebo controlled study of dietary supplementation with gamma-linolenic acid 540 mg/day. Nineteen patients received active therapy (as evening primrose oil 6 g/day) and 21 received placebo (olive oil 6 g/day). No patient stopped non-steroidal anti-inflammatory therapy but three patients in each group reduced their dose. Other results showed a significant reduction in morning stiffness with gamma-linolenic acid at 3 months and reduction in pain and articular index at 6 months with olive oil. Whilst gamma-linolenic acid may produce mild improvement in rheumatoid arthritis, olive oil may itself have hitherto unrecognized benefits.

CONTROLLED TERM: Medical Descriptors:
*digestive system injury: SI, side effect
***rheumatoid arthritis: DT, drug therapy**
article
clinical article
diet supplementation
double blind procedure
female
human
male
priority journal
prospective study
Drug Descriptors:
*nonsteroid antiinflammatory agent: AE, adverse drug reaction
*primrose oil: DT, drug therapy
gamma linolenic acid: DT, drug therapy
linoleic acid: DT, drug therapy
olive oil: DT, drug therapy
CAS REGISTRY NO.: (primrose oil) 65546-85-2; (gamma linolenic acid) 1686-12-0; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (olive oil) 8001-25-0

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ACCESSION NUMBER: 90271845 EMBASE
DOCUMENT NUMBER: 1990271845
TITLE: The influence of a fish oil dietary supplement on immunogenic keratitis.
AUTHOR: Verbey N.L.J.; Van Haeringen N.J.
CORPORATE SOURCE: Eye Hospital, Schiedamsevest 180,3011 BH Rotterdam, Netherlands
SOURCE: Investigative Ophthalmology and Visual Science, (1990) Vol. 31, No. 8, pp. 1526-1532.
ISSN: 0146-0404 CODEN: IOVSDA
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 012 Ophthalmology
026 Immunology, Serology and Transplantation
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 911213
Last Updated on STN: 911213

ABSTRACT: Fish lipids contain large amounts of eicosapentaenoic acid (EPA) and docosahexaenoic acid. These fatty acids are known to have an influence on prostaglandin (PG) and leukotriene (LT) synthesis. We studied the effect of a fish oil dietary supplement on an immune-complex-induced keratitis of the rabbit eye and compared it with the effect of a sunflower seed oil dietary supplement, rich in linoleic acid. Immune complex keratitis induced by intrastromal injection of human serum albumin (HSA) was characterized by leukocyte infiltrate, neovascularization, and corneal edema. Animals given a fish oil diet showed significantly less leukocyte infiltrate, neovascularization, and corneal edema, compared to those given a sunflower seed oil diet.

CONTROLLED TERM: Medical Descriptors:
***immune complex disease**
*keratitis: DT, drug therapy
biological model
rabbit
animal experiment
nonhuman
article
priority journal
Drug Descriptors:
*docosahexaenoic acid: PD, pharmacology
*docosahexaenoic acid: CB, drug combination
*docosahexaenoic acid: CM, drug comparison
*docosahexaenoic acid: DT, drug therapy
*fish oil: PD, pharmacology
*fish oil: DT, drug therapy
*fish oil: CB, drug combination
*fish oil: AN, drug analysis
*icosapentaenoic acid: CM, drug comparison
*icosapentaenoic acid: CB, drug combination
*icosapentaenoic acid: DT, drug therapy
*icosapentaenoic acid: PD, pharmacology
***linoleic acid: PD, pharmacology**
***linoleic acid: DT, drug therapy**
*linoleic acid: CM, drug comparison
*sunflower oil: PD, pharmacology

*sunflower oil: DT, drug therapy
*sunflower oil: CM, drug comparison
CAS REGISTRY NO.: (docosahexaenoic acid) 25167-62-8, 32839-18-2; (fish oil) 8016-13-5; (icosapentaenoic acid) 25378-27-2, 32839-30-8; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (sunflower oil) 8001-21-6

L179 ANSWER 56 OF 58 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2003:141977 BIOSIS
DOCUMENT NUMBER: PREV200300141977
TITLE: Efficacy of Systemic Linoleic and Gamma-linolenic Acid Therapy in Dry Eye Syndrome with Inflammatory Component.
AUTHOR(S): Barabbino, S. [Reprint Author]; Rolando, M. [Reprint Author]; Camicione, P. [Reprint Author]; Zanardi, S.; Cro, M.; Giuffrida, S.; Calabria, G. [Reprint Author]
CORPORATE SOURCE: Neurological/Vision Sciences, University of Genoa, Genoa, Italy
SOURCE: ARVO Annual Meeting Abstract Search and Program Planner, (2002) Vol. 2002, pp. Abstract No. 51. cd-rom.
Meeting Info.: Annual Meeting of the Association For Research in Vision and Ophthalmology. Fort Lauderdale, Florida, USA. May 05-10, 2002.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 19 Mar 2003
Last Updated on STN: 19 Mar 2003

ABSTRACT:Purpose: To evaluate the efficacy and the anti-inflammatory activity of the systemic use of linoleic (LA) and gamma-linolenic acid (GLA), which have been demonstrated to decrease the chronic inflammatory state in ***rheumatoid*** **arthritis**, on the ocular surface of patients with keratoconjunctivitis sicca. Methods: In a randomized clinical trial twenty-six dry eye subjects, average age 49.5+-9.2 years, with aqueous deficient keratoconjunctivitis sicca were consecutively selected from patients seeking consultation at the Anterior Surface Diseases Center of the Department of Neurological and Vision Sciences of the University of Genoa. The diagnosis was made on: dry eye symptom survey score>14, Schirmer I values (without anesthesia)<5 mm/5 minutes, positive vital staining with lissamine green (graded 0 to 9 according to Van Bijsterveld score system)<3.5, fluorescein break up time (FBUT)<7 sec. All patients showed ocular surface inflammation studied by the expression of HLA DR, a Major Hystocompatibility Class II antigen, tested on epithelial bulbar conjunctiva samples. The subjects were randomly divided into two groups, with no statistical differences in age, symptoms, signs or ocular surface inflammation at baseline. The study group (n=13) was treated orally with tablets containing LA (28,5 mg) and GLA (15 mg) twice daily for 45 days, the control group was treated with a tear substitute alone with the same frequency than the study group. Results: A statistically significant change in symptoms ($p<0.005$), lissamine green staining ($p<0.005$) and ocular surface inflammation ($p<0.05$) was observed in the study group compared to the control group. The HLA DR expression varied from 58.5+-14.1% positive conjunctival cells to 41.3+-18.9% for the treated group and from 61.4+-21.9% to 58.0+-13.3% for the untreated group. No statistically significant difference between groups was recorded for FBUT and Schirmer I test. Conclusion: Systemic therapy with LA and GLA, additionally to tear substitutes, is able to reduce ocular surface inflammation and to improve symptoms in dry eye patients. But long-term studies are needed to confirm the role of this new therapy for keratoconjunctivitis sicca.

CONCEPT CODE: General biology - Symposia, transactions and proceedings 00520

Biochemistry studies - Lipids 10066
Pathology - Therapy 12512
Sense organs - Physiology and biochemistry 20004
Sense organs - Pathology 20006
Pharmacology - General 22002
Pharmacology - Clinical pharmacology 22005
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012
Pharmacology - Sense organs, associated structures and functions 22031

INDEX TERMS: Major Concepts
Pharmacology; Sense Organs (Sensory Reception)

INDEX TERMS: Diseases
dry eye syndrome: eye disease, therapy
Dry Eye Syndromes (MeSH)

INDEX TERMS: Chemicals & Biochemicals
gamma linoleic acid: antiinflammatory-drug, ophthalmic-drug; **linoleic acid: antiinflammatory-drug, ophthalmic-drug**

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human (common): middle age
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

REGISTRY NUMBER: 60-33-3 (linoleic acid)

L179 ANSWER 57 OF 58 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2001:284885 BIOSIS
DOCUMENT NUMBER: PREV200100284885
TITLE: Docosahexaenoic acid suppresses function of the CD28 costimulatory membrane receptor in primary murine and Jurkat T cells.
AUTHOR(S): Arrington, Jennifer L.; McMurray, David N.; Switzer, Kirsten C.; Fan, Yang-Yi; Chapkin, Robert S. [Reprint author]
CORPORATE SOURCE: Faculty of Nutrition, Texas A and M University, College Station, TX, USA
r-chapkin@tamu.edu
SOURCE: Journal of Nutrition, (April, 2001) Vol. 131, No. 4, pp. 1147-1153. print.
CODEN: JONUAI. ISSN: 0022-3166.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Jun 2001
Last Updated on STN: 19 Feb 2002

ABSTRACT:(n-3) Polyunsaturated fatty acids (PUFA) have been widely documented to reduce inflammation in diseases such as **rheumatoid** ***arthritis.*** This study sought to elucidate the mechanism whereby (n-3) PUFA downregulate T-cell proliferation. We hypothesized that membrane incorporation of dietary PUFA would alter membrane structure and consequently membrane receptor function. Female C57BL/6 mice were fed for 14 d one of three diets containing arachidonic acid (AA), fish oil or docosahexaenoic acid (DHA) that varied in lipid composition only. Spleens were harvested and T cells (apprx90% purity) were activated with agonists that stimulated proliferation at the receptor level (anti-CD3 (alphaCD3)/anti-CD28 (alphaCD28)), intracellularly

(phorbol-12-myristate-13-acetate (PMA)/ionomycin) or with a combined receptor/intracellular agonist (alphaCD3/PMA). Although there was no significant difference (P > 0.05) in proliferative response across dietary groups within each agonist set, interleukin (IL)-2 secretion was significantly reduced (P = 0.05) in cells from DHA-fed mice stimulated with alphaCD3/alphaCD28. In parallel in vitro experiments, Jurkat T cells were incubated with 50 mumol/L linoleic acid, AA, or DHA. Similar agonists sets were employed, and cells incubated with DHA and AA had a significantly reduced (P < 0.05) IL-2 secretion in three of the agonist sets. However, only when the CD28 receptor was stimulated was there a significant difference (P < 0.05) between DHA and AA. The results of this study suggest the involvement of the CD28 receptor in reducing IL-2 secretion in DHA-fed mice and DHA-incubated Jurkat cells and that purified T cells from DHA-fed mice require accessory cells to modulate proliferative suppression.

CONCEPT CODE:
Animal production - Feeds and feeding 26504
Cytology - Animal 02506
Cytology - Human 02508
Biochemistry studies - General 10060
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Lipids 10066
Biophysics - Membrane phenomena 10508
Nutrition - General studies, nutritional status and methods 13202
Blood - Blood and lymph studies 15002
Blood - Blood cell studies 15004
Immunology - General and methods 34502

INDEX TERMS:
Major Concepts
Membranes (Cell Biology); Nutrition

INDEX TERMS:
Parts, Structures, & Systems of Organisms
T cells: blood and lymphatics, immune system; spleen: blood and lymphatics, immune system

INDEX TERMS:
Chemicals & Biochemicals
CD28 costimulatory membrane receptor; alpha-CD3/PMA [alpha-CD3/phorbol 12-myristate 13-acetate]: receptor/intracellular agonist; anti-CD3: agonist, proliferation stimulant; arachidonic acid: polyunsaturated fatty acid; docosahexaenoic acid: T cell proliferation downregulator, polyunsaturated fatty acid; interleukin-2 [IL-2]: secretion; ionomycin: agonist, intracellular proliferation stimulant; **linoleic acid**; lipid: composition; phorbol 12-myristate 13-acetate: agonist, intracellular proliferation stimulant

INDEX TERMS:
Methods & Equipment
incubation: cell culture method

INDEX TERMS:
Miscellaneous Descriptors
arachidonic acid diet: animal feed; docosahexaenoic acid diet: animal feed; fish oil diet: animal feed, fats and oils

ORGANISM:
Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Jurkat cell line cell line: human leukemia cells
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

ORGANISM:
Classifier

Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
mouse: animal model, female, strain-C57BL/6
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
REGISTRY NUMBER: 506-32-1 (arachidonic acid)
6217-54-5Q (docosahexaenoic acid)
25167-62-8Q (docosahexaenoic acid)
32839-18-2Q (docosahexaenoic acid)
56092-81-0 (ionomycin)
60-33-3 (linoleic acid)
16561-29-8 (phorbol 12-myristate 13-acetate)

L179 ANSWER 58 OF 58 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1994:315717 BIOSIS
DOCUMENT NUMBER: PREV199497328717
TITLE: Increased TGF-beta and decreased oncogene expression by omega-3 fatty acids in the spleen delays onset of autoimmune disease in B/W mice.
AUTHOR(S): Fernadnes, Gabriel [Reprint author]; Bysani, Chandrasekar; Venkatraman, Jaya T.; Tomar, Vikram; Zhao, Weiguo
CORPORATE SOURCE: Dep. Med., University Texas Health Sci. Center, 7703 Floyd Curl Dr., San Antonio, TX 78284-7874, USA
SOURCE: Journal of Immunology, (1994) Vol. 152, No. 12, pp. 5979-5987.
CODEN: JOIMA3. ISSN: 0022-1767.
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LANGUAGE: English
ENTRY DATE: Entered STN: 26 Jul 1994
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ABSTRACT:This study was designed to investigate the mechanisms by which marine lipids rich in long chain omega-3 fatty acids inhibit autoimmune disease and prolong the survival rate in female (NZB/NZW) F1 (B/W) mice, an animal model for human SLE. Nutritionally adequate semipurified diets containing at 10% either corn oil (CO) or fish oil (FO) were fed from 1 mo of age and were monitored for proteinuria and survival. Proteinuria was detected earlier and became progressively severe in CO-fed mice. The average life span was significantly shortened by the CO diet (266.7 days +- 12.5), whereas FO extended the survival significantly (402.1 days +- 26.1; p lt 0.001). A cross-sectional study at 6.5 mo of age revealed an increased proliferative response to T cell mitogens including bacterial superantigens and decreased serum anti-dsDNA Ab titers in the FO group compared with the CO group. Furthermore, splenocytes from the FO group when stimulated with Con A had higher IL-2 and lower IL-4 production similar to that of young (3.5 mo) mice. Flow cytometric analyses of splenocytes revealed lower Ig+, higher lymphocyte endothelial cell adhesion molecule-1, and lower Pgp-1+ cells within CD4+ and CD8+ subsets in FO-fed mice. Also, elevated IL-2 and IL-4 and significantly higher TGF-beta-1 and lower c-myc and c-ras mRNA expression and higher TGF-beta-1 and significantly lower c-Myc and c-Ha-Ras proteins were detected in spleens of FO-fed mice. Fatty acid analysis revealed significantly higher linoleic (18:2-omega-6) and arachidonic (20:omega-6) acid levels in splenocytes of the CO-fed group and higher eicosapentanoic (20:5-omega-3) and docosahexanoic (22:6-omega-3) acid levels in the FO-fed group, indicating that changes in membrane fatty acid composition may contribute to the altered immune function and gene expression during the development of murine SLE.
CONCEPT CODE: Cytology - Animal 02506

Genetics - Animal 03506
Biochemistry studies - Lipids 10066
Replication, transcription, translation 10300
Biophysics - Membrane phenomena 10508
Pathology - Inflammation and inflammatory disease 12508
Pathology - Therapy 12512
Metabolism - Lipids 13006
Metabolism - Proteins, peptides and amino acids 13012
Nutrition - Pathogenic diets 13216
Nutrition - Prophylactic and therapeutic diets 13218
Nutrition - Lipids 13222
Food technology - Fats and oils 13514
Food technology - Fish and other marine and freshwater products 13522
Food technology - Evaluations of physical and chemical properties 13530
Blood - Blood cell studies 15004
Blood - Lymphatic tissue and reticuloendothelial system 15008
Urinary system - Pathology 15506
Endocrine - General 17002
Bones, joints, fasciae, connective and adipose tissue - Pathology 18006
Development and Embryology - Morphogenesis 25508
Laboratory animals - General 28002
Immunology - Immunopathology, tissue immunology 34508

INDEX TERMS: Major Concepts
Blood and Lymphatics (Transport and Circulation); Endocrine System (Chemical Coordination and Homeostasis); Genetics; Immune System (Chemical Coordination and Homeostasis); Membranes (Cell Biology); Molecular Genetics (Biochemistry and Molecular Biophysics); Nutrition; Skeletal System (Movement and Support); Urinary System (Chemical Coordination and Homeostasis)

INDEX TERMS: Chemicals & Biochemicals
LINOLEIC ACID; ARACHIDONIC ACID; EICOSAPENTAENOIC ACID; DOCOSAHEXAENOIC ACID

INDEX TERMS: Miscellaneous Descriptors
ANTI-DOUBLE STRANDED DNA ANTIBODY; ARACHIDONIC ACID; C-MYC GENE; C-RAS GENE; CORN OIL DIET; DOCOSAHEXAENOIC ACID; EICOSAPENTAENOIC ACID; FISH OIL DIET; IMMUNOGLOBULIN; INTERLEUKIN-2 PRODUCTION; INTERLEUKIN-4 PRODUCTION; LINOLEIC ACID; LYMPHOCYTE ENDOTHELIAL CELL ADHESION MOLECULE-1; MEMBRANE FATTY ACID COMPOSITION CHANGE; PGP-1; PROTEINURIA; SURFACE MOLECULE EXPRESSION; SURVIVAL EXTENSION; **SYSTEMIC LUPUS ERYTHEMATOSUS** MODEL; T CELL PROLIFERATIVE RESPONSE; TRANSFORMING GROWTH FACTOR-BETA

ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Muridae
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: 60-33-3 (LINOLEIC ACID)
506-32-1 (ARACHIDONIC ACID)

10417-94-4Q (EĪCOSAPENTAENOIC ACID)
25378-27-2Q (EICOSAPENTAENOIC ACID)
32839-30-8Q (EICOSAPENTAENOIC ACID)
6217-54-5Q (DOCOSAHEXAENOIC ACID)
25167-62-8Q (DOCOSAHEXAENOIC ACID)
32839-18-2Q (DOCOSAHEXAENOIC ACID)

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